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ABSTRACT

This document contains articles that address six major issues affecting Montana public education. The issues were selected by an advisory group comprised of representatives from professional education organizations, state agencies, the legislature, and business. Each of the articles, written by members of the advisory group, contains an executive summary, an overview of the national picture, and a description of Montana's status in that area. Recommendations and implications for policymakers are also offered. The articles include: (1) "School Accreditation and Charter Schools: A Natural Bridge or an Unattainable Gulf?" (Claudette Morton); (2) "School-Linked Integrated Services" (Paula Butterfield and Billie Warford); (3) "Inclusion of Special Needs Students" (Kathy Kelker); (4) "School Facilities" (Jerry Lowe and Gary Griffith); (5) "Technology in Education" (Janis Bruwelheide); and (6) "School-to-Work Programs" (Jane Karas and John Baldridge). References accompany each article. (LMI)

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Public Education Policy Issues in Montana

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Introduction

Serious discussion about the restructuring of education in America has taken place at various times throughout the last century and a half. The latest round of discussions began in earnest over a decade ago with the publication of the Nation at Risk report. To date, however, no specific comprehensive and scholarly works on the topic have been prepared specifically for the State of Montana. The Burton K. Wheeler Center and the US WEST Foundation seek to change that by sponsoring this publication.

This document addresses six major issues affecting Montana public education. It is not easy to select just six topics and we were not so presumptuous as to think we could or should do so on our own. We created an Advisory Group consisting of education leaders listed below. Note that they include representatives from professional education organizations (both teachers and administrators), state agencies, the legislature, and business.

Bob Anderson, Director, Montana School Boards Association
Bob Brown, Senator
Wayne Buchanan, Executive Secretary, Board of Public Education
Paula Butterfield, Superintendent, Bozeman Public Schools
Keith Chambers, Associate Professor, Department of Education, Montana State University-Bozeman
Eric Feaver, President, Montana Education Association
John Fero, Elementary Principal, Helena Public Schools
Loran Frasier, Executive Director, School Administrators of Montana
Pat Haffey, Education Policy Advisor to Governor Racicot
Randy Hitz, Dean, College of Education, Health and Human Development, Montana State University-Bozeman
Nancy Keenan, Superintendent, Office of Public Instruction
Ray Peck, Representative
Don Robson, Dean, School of Education, University of Montana
Nancy Lee, Director of Energy Services

This group met in June, 1994 to select the six topics which could most appropriately be addressed in this document. Our selections were based first on the target audience, which is policy makers: school board trustees, members of the State Board of Public Education, legislators, the Governor, and others. Our selections were also based on practical matters, such as the extent to which the issue had already been dealt with or the likelihood the legislature would or

could do anything to address it in the 1995 session. Therefore, we deliberately chose not to include government restructuring, school finance, or school consolidation. We also chose not to include discussion of the impact of more quiet but equally important topics such as advances in the pedagogical knowledge base which are today driving all the major curriculum changes in our schools.

Advisory Group members assumed several other major responsibilities: recommending possible authors, reviewing first drafts of the articles, and making recommendations for how to distribute the final document. Though Advisory Group members were all involved in the process, the views expressed by the authors are strictly theirs and should not be attributed to the editors, Advisory Group members, the Burton K. Wheeler Center, or the U.S. West Foundation.

Authors were asked to organized their articles according to the following outline. Each article begins with a short executive summary which enables the reader to quickly obtain the essence of the article. Next, authors were asked to present national perspectives (that is, an overview of what is happening nationally) and then talk specifically about Montana. Finally, the authors were asked to present options, recommendations and questions for policy makers to consider. Every attempt was made to keep the articles as objective and nonpartisan as possible.

School Accreditation and Charter Schools: A Natural Bridge or an Unattainable Gulf? Claudette Morton

Dr. Morton is the former Executive Secretary to the Board of Public Education and one of the leaders in the major changes recently made in school accreditation standards, "Project Excellence: Designing Education for the Next Century." She is currently a professor at Western Montana College.

"Project Excellence" was one of the first attempts in the nation to move state standards from inputs to outcomes and, according to Dr. Morton, we now have standards which are a mixture of both. On the national scene, the issue of outcome-based standards has moved to center stage with the passage of Goals 2000 legislation.

A related topic, charter schools, is also being widely discussed. The idea behind charter schools is to encourage the creation of autonomous, innovative

schools that are held accountable for results rather than compliance with rules and regulations. As of the beginning of this year, eight states had some form of charter schools, and 14 other states were considering some aspect of the concept. Reducing or eliminating state requirements for some schools is certainly controversial, but, some argue, worth the risk, given the need for change in the schools. Dr. Morton does not address that need. Nevertheless, for policy makers wishing to know more about the issue Dr. Morton does an excellent job of raising the right questions.

School-Linked Integrated Services — **Paula Butterfield**
Billie Warford

The concept of full-service schools which provide health and social services as well as education for children, youth and families may seem revolutionary to some, but in 1993 only ten states had no school-based service programs identified and those were mainly in the mountain states. Dr. Butterfield, Superintendent of Bozeman Schools, and Billie Warford, adjunct instructor at Montana State University-Bozeman, currently have separate but related grants from the Kellogg Foundation and the Danforth Foundation to facilitate integration of education with health, and social services for young children in the Bozeman area and throughout the state. They review the comprehensive programs operating in the state and nation and present the political, financial and cultural issues which accompany them.

Common sense tells us that it is difficult or impossible to teach a child math, reading or other academic subjects if she or he is hungry, tired, afraid, or otherwise distracted by health or social concerns. Integrating education, health, and social services is certainly important if we are to meet the total needs of children, including their educational needs. The authors point out that this does not necessarily mean the schools take responsibility for all these services but that schools work with other agencies to ensure coordination and a high quality of services such that no child is left behind.

Inclusion of Special Needs Students — **Kathy Kelker**

Dr. Kelker writes,

In an effort to do a better job of meeting the educational needs of students with disabilities and to be in compliance with special education law, school districts across the United States are experimenting with greater inclusion of

students with special needs in regular classrooms. As more and more students with disabilities join their peers in inclusive classrooms, a contentious debate has developed over the merits of full inclusion. Some parents call inclusion the best thing that ever happened to their children; while others call it a 'cruel sales pitch.' Some teachers are enthusiastic, others are appalled. Many are sympathetic but skeptical.

Much of the increase in the cost of public education over the last thirty years can be attributed to increases in services for special needs students. Thirty years ago, the education we provided to special needs students was a disaster for many and an embarrassment for all. In this paper, Dr. Kelker, Director of Parents Let's Unite for Kids, addresses a number of questions: Will the inclusion movement further the cause for special needs students? Will it improve the overall quality of education for all students? Is it merely a cynical attempt to save money by "dumping" special needs students into regular classrooms? If we are to succeed with inclusion, what additional resources will school districts and classroom teachers need and what will they cost? What will be the cost if we don't do it?

School Facilities **Jerry Lowe**
Gary Griffith

Although we are well into our second decade of debate on the restructuring of public-school education, very little attention is being given to the physical environment in which the restructuring is to occur. Indeed, America and Montana are facing a facilities crisis in the public schools. In addition to safety and health concerns, we are discovering through research that the physical condition and appearance of the building has a great impact upon the effectiveness of the instructional programs housed within it. Could it be that in many communities throughout Montana we send our children each morning to spend the day in the least healthy, least safe structures in town? Dr. Lowe, a professor at the University of Montana and national authority on the issue of facilities, collaborated with Gary Griffith, Supervisor of Support Services for the Bozeman Schools and noted authority on school facilities in Montana, to write this article. In it they identify national and state trends and conclude with some very specific recommendations.

Technology in Education **Janis Bruwelheide**

Dr. Bruwelheide, Associate Professor at Montana State University-Bozeman

and an authority on the use of technology in the classroom, addresses questions about how we are and should be taking advantage of recent technological advances to improve education for our children and youth. The impact of these technologies on business and industry as well as our personal lives is immense and well known. A challenge facing Montana policy makers is how to best provide learners of all ages with equitable educational opportunities while dealing with scarce resources and rapidly-changing delivery mechanisms. The article concludes with some specific first-steps recommendations.

School-to-Work Programs **Jane Karas**
John Baldridge

By the year 2000, only 15 percent of all U.S. jobs will be unskilled, and 20 percent will require a professional degree (B.A. or higher). More than 65 percent will require specialized skills beyond the high school diploma. Now and in the future, the majority of jobs will require both academic and technical skills but, to date, students have been forced to choose between the two tracks in our high schools. New efforts in the area of school-to-work seek to remedy that by creating partnerships between high schools, higher education, and business to better prepare all students for the world of work. Dr. Jane Karas, Montana's Assistant Commissioner of Technical Education, and John Baldridge, Research Assistant for Vocational and Technical Education, present an excellent overview of the issues and trends in this area and conclude their article with specific recommendations for Montana policymakers.

STATE ACCREDITATION STANDARDS

AND

CHARTER SCHOOLS:

A NATURAL BRIDGE OR AN UNATTAINABLE GULF?

by

Claudette Morton, Ed.D., Professor
Western Montana College

Executive Summary

Historically, many states have had school accreditation processes as a way of measuring the effectiveness of their public schools. In the eighties the focus of accreditation standards began to shift from input to process and outcome standards. There are currently 26 states with performance-based accreditation. Some of the states which moved to performance-based accreditation standards felt that they wanted to encourage still more innovation in their local schools, so they enacted legislation or regulations allowing for and encouraging charter schools. In 1991, Minnesota became the first state to enact charter schools legislation. There are now ten states which have charter school legislation and at least six more where it is pending.

Generally, all the legislation which has been enacted or proposed gives a school freedom from restrictive education rules and laws in return for the school's taking on a greater share of accountability in terms of some measures of student performance. The schools are usually excused from in-put standards, i.e., length of school day and year. They are not generally excused from laws and regulations involving safety, equity and financial responsibility. There are many examples of charter schools being established which have some aspect of education research as their *raison d'etre*. However, not all charter schools are without controversy. Proponents of this reform movement believe it to be significant and lasting because it is a movement from the grassroots. Others believe that the innovation will be confined to a few places and will never impact the full system of public education in America.

Montana has made some progress on the accreditation front, though so far there has been no move by any state level group to discuss charter schools until the request for this paper. The current accreditation standards, put in place in 1989, are a mixture of inputs, processes and outcomes. However, there is a unique standard which moves Montana into the charter school scene. The alternative standard allows schools to substitute an alternative to an input or process standard if they can justify it and they have a core curriculum and assessment measures in that area. Because of the direction the accreditation standards have taken, in Montana, if it is deemed desirable, the move from the current accreditation standards to allowing charter schools appears to be a natural bridge.

Nevertheless, before any charter school legislation should be enacted, the answers to ten questions which follow must be considered.

1. Which entities should be allowed to sponsor charter schools?
2. Which specific state laws/rules should charter schools be held to?
3. Should the mechanics of funding a charter school prevent the state from moving ahead?
4. What type of local school governance structure should be established?
5. How do you overcome potential resistance from local boards and teacher associations?
6. Should private schools be considered for inclusion?
7. Will charter schools conflict with state efforts to consolidate school districts?
8. What role should the state play, if any, in providing technical assistance? (9-12)

This author would add the following considerations, based on this study,

1. For how long should the charter be given?
2. What outcomes must the charter school meet?

Introduction

Public education is a major responsibility of state government. Traditionally, it is one of the most expensive parts of a state's budget and impacts the largest number of a state's citizens. One way in which states exert control over their public school systems is by setting educational standards. These standards often take the form of required accreditation standards. Usually, but not always, accreditation is a requisite for receiving state funding for a school.

Montana is one of these states. In fact, Montana has had a statute requiring public schools to be accredited since 1947 (MCA 20-7-101). Even with state accreditation standards, Montana schools have always had a fair amount of autonomy. Local control is a corner stone of public education in the state.

On the national scene educational reformers have been looking for ways to provide schools more local control. The most popular effort currently underway is that of charter schools. The idea behind charter schools is "to encourage the creation of autonomous, innovative schools that are held accountable for results rather than compliance with rules and regulations" (Olson 14).

The purpose of this paper is to examine this issue of charter schools as it relates to the public education system in Montana. Specifically in this paper the following questions will be addressed,

1. How have other states moved their accreditation processes to the point of accommodating charter schools?
2. What are the successes and problems of charter schools?
3. Where is Montana on accommodating this new issue?
4. What changes must be made in the Montana Accreditation Standards or state law to encourage the best aspects of charter schools?

National Perspective

Historically, many states have conducted school accreditation processes as methods to measure the effectiveness of their public schools. While some states don't have their own accreditation standards, they require at least their high schools to be accredited by regional accrediting agencies. Traditionally, few colleges accept students, except under very special conditions, if they have

not graduated from an accredited high school. However, with the growth of home schooling in America, this may be changing.

Initially, meeting accreditation standards was a way in which the states were assured that schools had the right number and kinds of things. They were quantitative standards, i.e., class size or certain classes for graduation requirements. These were called in-put standards, and when state education agency personnel visited schools, they checked to see if schools were displaying a state flag, if they had the required classes, if the class size was within the required limit, if the school day met the minimum number of hours, etc.

In the eighties the focus of accreditation standards began to shift from inputs to process and outcome or qualitative standards. According to a list obtained from the Education Commission of the States (ECS), as of February 1994 there were 26 states with performance-based or outcome accreditation. [See Appendix A.] In Texas in 1987, the state based changes in its accreditation standards on effective schools research, and in a pilot program that same year selected sites connecting school accreditation to student outcomes and effective schools research (Norris et. al., 3). The state of Michigan provided its schools with options in the New State School Aid Act of 1989-90. According to Donald L. Remis, State Superintendent of Public Instruction, funds were given to schools on a competitive basis for planning and implementing innovative education programs that would improve schools' performances in student outcomes (1).

While many states in the East have moved in the direction of outcome based education, those in the West with outcome based accreditation include Washington, Wyoming, Colorado and New Mexico, which has voluntary accreditation, but the state sets the standards. (ECS). Colorado's state board of education, in revising its accreditation standards, cut mandates by 20 percent (Ellis and D'Evelyn 2). In addition to traditional school accreditation, the new rules provide schools two options. The first is performance contract accreditation for schools which generally exceed state standards. This form of accreditation will be given for six years thus further cutting the paper work. The other option is enterprise contract accreditation which allows a district, no matter what its accreditation status, to propose its own accountability plan to move its schools toward meeting the state expectations (2).

Montana's neighbor to the south, Wyoming, has also moved into performance- based school accreditation. The new standards have an

"exception clause" which allow schools to request the state board to "set aside any state regulation that is found to stand in the way of improved learning," according to former State Superintendent Lynn Simons. The standards were phased in over a four-year period. Begun in 1990, the first phase required schools to develop a mission statement and goals with input from parents and community members. The second phase, completed in 1992, required all districts to gather baseline data, develop their own student performance goals and determine the means by which they would measure student progress. In the final phase, districts were expected to present their constituents with a district report card explaining their expectations, their accomplishments and further steps to improve student performance ("Performance-based Accreditation Adopted" 1).

Some of the states which have moved to performance-based accreditation standards wanted to encourage still more innovation in their public schools, so they have enacted legislation or regulations allowing for and encouraging charter schools. The concept of charter schools grew out of the school choice movement and is hailed by supporters as a way to "break the bureaucratic logjam that has stymied school reform in the United States" (Harrington-Lueker 22). Proponents also argue that charter schools represent a return to the American common school ideals. They are non-sectarian, open and free to all students and can not discriminate on the basis of race, religion or disability (Bierlein & Mulholland 2).

In 1991 Minnesota became the first state to enact charter schools or as they called the concept "outcome-based schools" legislation (Mulholland & Bierlein 2). The original legislation authorized the creation of up to eight charter schools. They were to be organized by certified teachers and sponsored by local school districts. The following year two charter schools were opened in Minnesota. One was a year-round program for 35 at-risk adolescents and young adults, the other was a private Montessori school for children from kindergarten through grade six. The following year four more charter schools were established in the state including a school for hearing impaired students and a vocational-technical school. Some of the other schools which have received Minnesota charters offer such innovative practices as multi-age classrooms, thematic learning, extensive parental involvement, extended school day and multicultural curricula (2). Last year, the Minnesota legislature added authorization for 12 more charter schools, making the total 20 in the state. In addition, the 1993 revisions in the law allow for an appeals process to the state board of education (2). One of the sponsors of the charter school legislation,

Representative Becky Kelso, said, "The gift of Charter Schools is the gift of freedom" (Sautter 3). Although opponents might very well ask, freedom from what? or for whom?

After Minnesota's charter school legislation, California passed its own the following year. This state's legislation allowed for the creation of up to 100 charter schools. Under the California provisions any individual can circulate a charter school petition which must receive sponsorship by the local school district or can be appealed to the county board of education. How much legal autonomy the school receives depends on the conditions written into the charter agreement. As of November 1993, 40 schools had received charters; however, not all of them were planned to be operational before the fall of 1994. Some schools were given "developmental" charters and told to produce more details before they could be open (2). As with the Minnesota models, examples of innovation are present. There is one school which operates as an English as a second language (ESL) model, one that operates on the Total Quality Management model, and two which will be resource centers for home schools (2).

During 1993, six more states passed legislation for charter schools, and according to ECS, the list of states which currently allow for charter schools is now ten (Harrington-Lueker 23). [See Appendix B for a complete list.] At least six more states have legislation pending. While the number of charter schools is growing, the number of students impacted is still quite small. According to an article in the Wall Street Journal, earlier this year, only 12,700 students were enrolled in 41 charter schools throughout America last year. Considering that the 1993 Statistical Abstract of the United States: The National Data Book reported there were 47.4 million school age students in America (148), the number in charter schools is very small. However, this number is expected to increase in the coming years as schools in the planning stages move to implementation and as more schools apply for charter status (23).

What do these charter schools and the state reform legislation have in common? The answer is very little. Generally, all the legislation which has been enacted or proposed gives a school freedom from restrictive education rules and laws in return for the school taking on a greater share of accountability in terms of some measures of student performance (Olson 14). From this general concept, the states vary widely in the nuts and bolts of their programs. Some states grant charters only to existing schools, while others

want to encourage totally new schools to develop. At least three states set caps on the number of charters which can be granted, while two--Georgia and Michigan-- do not. Some of the states grant blanket waivers from existing regulations, but others such as Colorado require waivers from each rule to be negotiated separately for each school (14). Some states have schools apply to their local district for the charter, while others expect them to apply to the state (Bierlein & Mulholland 14). Some states prohibit private schools from applying; others, such as Minnesota, allow both private and public applications (Mulholland & Bierlein 2).

Since one of the motivations for a school becoming a charter school is freedom from regulations and, in some cases laws, it would seem worthwhile to note from which laws and regulations the schools are freed. Again it varies from state to state, but generally states usually excuse schools from what might be called in-put standards, i.e., length of the school day and year, class size, budgeting mandates, the local collective bargaining agreements, etc. (2-4). Some go so far as to excuse schools from certification requirements and regulations and any collective bargaining agreements. For example, the Minnesota charter schools legislation specifies that "only certified teachers can teach in charter schools," while California only requires that the charter specify the "required employee qualifications" (Bierlein & Mulholland Appendix A). Connecticut has taken still a different approach. According to the Report of the Connecticut Task Force on Charter Schools, all teachers in the charter school must be certified, but the school may receive a waiver in its charter for teachers to teach outside their endorsed areas. Also, since teachers are encouraged to provide the management of the charter school, there is no requirement for certified administrators (Headspeth 10-20). What schools are not usually excused from are laws and regulations involving safety, equity and financial responsibility (Olson 14). In addition, to being free from these constraints, the schools receive the per pupil amount that the state pays all schools. The charter schools then must agree that they will be accountable to meet certain student outcomes. Generally included in these are some form of assessment of core learning and high attendance rates (Harrington-Lueker 22).

Some of the problems that arise are who pays for transportation and the business costs, both of which are usually run through a school district's central office. While the charter schools are expected to be innovative, no start up or planning money has been provided, nor are there generally any funds at the state education agency level to provide these new enterprises with technical assistance. Often, charter schools find that they must do fund raising to meet

their proposed budgets, since most states' education budgets are very tight (23). While the financial impact of charter schools is not currently seen as significant, because the numbers are so small, if many schools were to go this route, the impact may well be significant.

There are many examples of charter schools being established which have some aspects of education research as their *raison d'etre*, such as three charter high schools which have adopted Theodore Sizer's Essential Schools model (Harrington-Lueker 40). Others do seem to be enterprises in the traditional mercantile sense; they are there to make money. One example which is causing some controversy in Michigan is its first charter school, the Noah Webster Academy. According to an article in the September issue of The American School Board Journal, the "school" is planned to be a distance-learning network for 1200 home schoolers (Harrington-Lueker 27). With that kind of enrollment the state aid which is at $5,500 per student will be about $6.6 million a year. The first year the school will pay for a 486 PC computer with a 200 megabyte hard drive, a modem, a CD-ROM player with an encyclopedia, a laser printer and a fax for each student or, where whole families are enrolled, one for every two students. The school will use the Baltimore-based Calvert School, a popular home school curriculum for K-8 students and a distance-learning curriculum from the Alaska state department, originally developed in the thirties for high school students. One of the problems which has arisen is that there is a concern that creationism will be taught, even though Michigan has strict laws on nonsectarian public education. The ACLU is watching the school very carefully. However, even if this is not an issue, there are others. Based on a technology replacement plan of every three years, it is estimated that given the other expenses of teachers, technicians, etc., by the end of five years in operation, the Noah Webster school will have a surplus of $12.3 million (28). Others have expressed concerns because the charter was negotiated with a very small local school board (Michigan does not require charters to be given by the state) whose annual total school budget is about $100,000 and who will receive from its new charter school one percent of the revenues per year or approximately $66,000 (28). Other questionable provisions of the charter are that the term is for 99 years and is automatically renewable for the same term "as long as the Academy is not in default," the school can enroll students from across the state not just in the district, and "the school board will not use any court case brought against the academy as reason to revoke the contract until all court appeals have been exhausted" (28). Clearly, this example needs to be kept in mind as policy makers in Montana consider the conditions for charter schools.

Still the issue of charter schools has not just been one on the state level. Both President Clinton and Secretary of Education William Riley have advocated public charter schools. In 1992, Senators David Durenberger (R-MN) and Joseph Lieberman (D-CT) introduced federal legislation which would have funded the start-up costs of charter schools; however, it was lost in that session of Congress. (Sautter 4). The legislation was reintroduced in this session, but the status of the legislation is unclear as of this writing.

Finally, the question arises, will this reform movement be significant and lasting. The proponents say yes, because it is a movement from the grassroots, and those charter schools which don't succeed in their reforms will go out of business. Others point out that the effort is a product of a national special interest group and believe that the innovation will be confined to a few places and will never impact the full public school system of the country. According to R. Craig Sautter in "Charter Schools: A New Breed of Public Schools,"

> In the past, it has taken as long as 27 years--a whole generation of teachers--for some major teaching innovations to take hold in the current system of U. S. classrooms. However, at this point, the public has invested in reform for a decade. Citizens want to see improved schools, and pressures are building to accelerate education reform or abandon it all together. Letting "somebody else" offer public education through Charter Schools could accelerate that rate of change and have enormous impact on how all schools operate (7).

The jury is still out, but there are some arguments for giving educators interested in innovation the opportunity to try it with the same resources that other public schools have at their disposal.

Montana Perspective

Montana has made some progress on the accreditation front, though so far there has been no move by any state level group to discuss charter schools until the request for this paper. According to personnel at the Office of Public Instruction, Montana has had state accreditation standards for schools to meet for 60 years, and as mentioned earlier accreditation has been in state law for 47 years (MCA 20-7-101). Unlike many states which accredited only their secondary schools, Montana always required all public schools, whatever the grade levels served, to comply. Several years ago the Montana High School Association made state accreditation a condition for schools to participate in

high school athletics and activities, so many private high schools also are accredited by the state.

The Board of Public Education sets the accreditation standards, and the Office of Public Instruction (OPI) has the enforcement responsibility. Generally, the way that OPI carries out this responsibility is through a self reporting form which the schools fill out each year. It is commonly called the Fall Report. In the late seventies, if a school were having problems, personnel from OPI might do an on-sight visit, or when a school was having its Northwest Accreditation review, OPI personnel would participate in that review and often look for compliance with state standards as well. In the early eighties, under Superintendent Ed Argenbright, OPI began a series of systematic accreditation visitations. One-fifth of the schools were to be visited each year, so that in a period of five years all schools would have an on-sight accreditation visit.

During this time the Office of Public Instruction received first a planning grant and then three two-year grants from the Andrew W. Mellon Foundation through the Council of Chief State School Officers. Montana was only one of four states to receive all four of these grants. The purpose of the grants was collaboration between public education and higher education, and the Montana Educational Challenge Project, as the grant program was called, chose to expand the OPI accreditation visits and take teachers, school administrators and representatives from higher education on the visits to see how accreditation was working as well as to collect data in three other areas:

1. Identification of exemplary teachers and administrators;
2. Examples of current staff evaluation techniques and the link between staff evaluation and staff development;
3. Determination of how much instructional time was being lost in the average Montana classroom to non-instructional items, including standardized testing.

In the spring of 1984, 25 pilot visitations were made, and the following fall 99 more schools were visited. The schools visited varied in size from a ten student, one teacher rural school to a 1400 student high school. Of the 351 professionals trained, 242 were utilized in either the pilot or the project visitations. ninety-one teachers, 64 administrators, 87 college personnel and four legislators were involved (Argenbright, Anderson & Morton 2).

From this involvement, the full education community of Montana became aware of the accreditation standards and began to think about revisions. In January of 1986, the Board of Public Education had a retreat to examine the direction Montana schools should be moving and determined that schools should move toward outcome-based education (Morton 2). In 1987, the Montana Legislature requested a major study of the accreditation standards, so the state Board of Public Education undertook "Project Excellence: Designing Education for the Next Century" (3). Here was the opportunity the state board had been waiting for and unknowingly anticipated in its retreat the year before. Project Excellence used as its underlying premise that the standards would define, as a result of going through a public school in Montana, what students should know and be able to do so they would be effective citizens in the next century. Had the direction stayed on course, Montana would have been in the forefront in the nation with new standards based on student outcomes. However, as the project progressed, political pressures and local educators made it clear through their testimony that Montana was not ready for such a bold new direction, so the state board modified the draft standards before enacting them. They kept many of the qualitative or outcome standards, but gave the local districts the responsibility for determining their own learner goals.

The standards, ultimately put in place in January 1989 and currently in force, are a mixture of qualitative and quantitative standards. According to the 1994 Edition of the Montana School Accreditation Standards, there are still some input standards--class size (9), one guidance counselor for every 400 students (8). There are some outcome standards, i.e. "the curriculum should allow students to identify and define a problem" (14), "give students the opportunity to develop citizenship skills..." (17), and "become mathematical problem solvers" (16). However, the concepts that local school districts have most strongly embraced are those which can be called process standards--specifically that schools will develop their own K-12 curriculum and assessment measures in all education programs (3). Local school districts have been working for five years on this curriculum and assessment standard despite the fact that public education in Montana has received no new funds or has been cut each year by the state legislature.

Since the current set of accreditation standards went into effect in 1989 in Montana, no significant new policies have been enacted, except that the state board has recognized the difficult fiscal restraints of schools and has allowed for some standards to be deferred. The Office of Public Instruction

discontinued on-site accreditation visits in the late eighties due to legislative budget cuts.

It would appear that the state perspective ends here, except for one unique feature in the accreditation standards. In a revision in the 1987 version of the standards, prior to Project Excellence an alternative standard was put in place. It read,

> Any school or school district may apply to the Board of Public Education through the Office Public Instruction for permission to use an alternate for any standards, section of standards or the entire set of standards excluding those standards that would affect certification policies or requirements. To do so, the school district should indicate the educational goals or values that the current standards should provide students, then how the alternate being applied for would provide the same or improved goals or values. Permission to use an approved alternate would be granted for one year and renewable if the one-year pilot is evaluated to be workable and educationally sound by both the school or school district and the Board of Public Education (Board of Public Education 12).

This in many ways was a forerunner to or the beginning of the charter schools concept. In 1989, when the full accreditation standards were revised, this standard was also revised, and is in place today. The current language is as follows,

1. A school may apply to the Board of Public Education through the Office of Public Instruction for permission to use an alternative to any standard, section of standards, or the entire set of standards, excluding standards pertaining to law or certification requirements. To do so, the school shall provide the Office of Public Instruction evidence that the opportunity to meet the accreditation standards' learner goals are at the core of its curricula--that is, that the school has put in place curriculum and assessment procedures which give students opportunities to meet the stated goals and which have been the result of the curriculum development process as outlined in the standards. The Board of Public Education may withdraw its permission of the alternative program at any time if experience shows it no longer provides an educationally sound alternative.
2. Permission to use an approved alternative shall be granted for one year. It is renewable for up to an additional five years without annual

approval, if both the school and the board of public education find the one-year pilot to be workable and educationally sound.

3. The school shall include an update on the alternative program(s) in its annual report to the Office of Public Instruction.
4. Approval and renewal of an alternative standard shall be done by the Board of Public Education in open meeting, which provides opportunity for public comment on each school's application for use of the alternative standard (Rule 10.55.604) (Board of Public Education 4).

Besides getting longer and, hopefully, clearer, the purpose and conditions for an alternative standard are definitely based on the school having a curriculum and assessment program in the area in which the alternative is to be sought. So while Montana schools cannot get around legal requirements (The state board felt it would have been presumptuous of them to waive any laws, since that would be the legislature's purview), clearly this standard would allow a school to substitute an "educationally sound" program for any of the input standards which are currently in place. Montanans may not have been discussing charter schools, but they clearly have been thinking of some of the same concepts which have resulted in charter schools.

Since the implementation of the alternative standard, the Board of Public Education has developed a form for applying for the alternative. On the form, the school is asked for "at least one specific, measurable objective which clearly shows how your proposed alternative will equal or better what is presently being accomplished in your school(s) or district" (Keenan G17). The form goes on to request that schools "list how and when the above objective will be evaluated." One might question that "at least one objective" is adequate to express the concept specifically in the standard which reads "that the school has put in place curriculum and assessment procedures which give students opportunities to meet the stated goals and which have been the result of the curriculum development process as outlined in the standards" (4).

Even given this discrepancy between what the standard says and how it is implemented, the question is have many schools applied for the alternative standard? Generally, according to OPI personnel, schools come to the Board with the alternative

standard to deal with specific personnel input issues, i.e., substituting a combination of school psychologists and social workers for the required number of guidance counselors. Since the Board has implemented deferrals on some of the personnel input standards, i.e., number of library/media specialists required for a certain size school (8-9), there have been fewer of those coming before the Board. One interesting point is that although some high schools are trying block scheduling, they have not needed to go the alternative standard route because there is already a rule allowing for alternative credit (15). The reality is that the potential of the alternative standard to really allow schools freedom from the input standards, has been practiced only when it is a matter of keeping personnel or programs in place the schools already have or of saving the schools from having to hire more personnel.

Conclusion

Given the history of the alternative standard, this author, at least, has to question whether the state's educators would really embrace a full fledged charter school initiative. On the other hand, perhaps part of the reason the alternative standard has not been utilized in any comprehensive manner has been that it didn't address the educational laws that deal with inputs. It might be worth exploring with the education community and the citizenry of Montana how they would feel about legislation which would free them from the time constraints (length of the school day, year and five days a week) and even from collective bargaining issues or certification requirements. How far to go and what to include in any prospective charter school legislation should be based on a number of factors. Bierlein and Mulholland in their report "Charter Schools: A Viable Reform Initiative" suggest that there are eight key considerations when policy makers are studying whether or not to develop charter schools legislation,

1. Which entities should be allowed to sponsor charter schools?
2. Which specific state laws/rules should charter schools be held to?
3. Should the mechanics of funding a charter school prevent the state from moving ahead?
4. What type of local school governance structure should be established?
5. How do you overcome potential resistance from local boards and teacher associations?
6. Should private schools be considered for inclusion?
7. Will charter schools conflict with state efforts to consolidate school districts?

8. What role should the state play, if any, in providing technical assistance? (9-12).

This author would add the following considerations, based on this study:

1. For how long should the charter be given?
2. What outcomes must the charter school meet?

As to the answers to these questions, I will respond to each, one by one.

In response to the first question, which entities should be allowed to sponsor charter schools, it would seem reasonable to use the alternative standard as a model. It is already in place and the school districts are used to the application process. In fact, when a school applies for an alternative standard, it is the chairperson of the board of trustees and the superintendent of the district or the county who signs the application, even though the application is for a school (Keenan G17). The application goes through the Office of Public Instruction to the Board of Public Education. If this same procedure were followed, a group wishing to start a charter school would have to have the blessing of the local school district from which they might be taking away students, or if the district wanted to make one of its schools a charter school, it could apply directly to the state board. Since Montana's constitution gives the local board of trustees control of the schools in its district and the state board general supervision for the whole system [Article X, sections 8 and 9 (3)(a)], this would seem to satisfy both parts of the constitution. Besides the fact that the alternative standard model is already in place, the issue is that the charter school would be getting state funds and should apply to the state, rather than having a local board grant the charter.

With regard to what state laws or rules the charter schools should be held to, I would first turn that around and say from which should they be exempt? It is this author's belief, based on experience, that the charter schools legislation would have much better potential for success if only input laws are excused, i.e., the number of hours in the school day, the number of days in the school year, and the requirement for school to be held five days a week. It might also be possible for a charter school to be exempt from current collective bargaining agreements, if the educators involved agreed to a different arrangement. Certification standards are a different matter. They have been enacted to assure citizens that there are educated, appropriately trained professionals working with the children of the state. This is such a significant

issue a whole paper could be written on it. Suffice it to say here that it is one that the state board has upheld most stringently. In addition, all of the major professional education organizations would come out against this part of the legislation. They probably will fight the collective bargaining issue as well, but that opposition might not be so strong, as long as it were not seen as a union busting issue. Both of these latter issues will have to be judged against the desire to truly remove the input requirements and see if a successful charter school can be created in Montana. Including collective bargaining and certification issues in charter school legislation could sink the whole bill. To respond to the original question, I would concur with Bierlein and Mulholland that any charter school legislation should ensure "high standards and outcomes for students, guarantee nondiscriminatory procedures, and ensure the health, safety, and welfare of the students" (10). I would just add that under the "welfare of the students" certification could well be included, and therefore certification standards and laws would be exempt from the inputs to be removed for charter schools.

The third issue, that of what funds a charter school will receive and for what they must be responsible financially, is a difficult issue, but one on which Minnesota and California have both been working (10). Based on these two states and others' experiences, the best way for Montana to progress in the legislation is to give the charter school the ANB amount it would normally be entitled to from the state including the Guaranteed Tax Base to which it would be entitled. Transportation is another issue, but if the school were drawing students from within a district boundary, it might be given a prorated amount for those students as well based on the amount the district would normally get from the state. The school would then need to contract with the district for transportation, as well as pay the district expenses for such items as payroll, etc. Neither California nor Minnesota gives charter schools access to bonds or local levies. This does not seem to be much of a problem for California charter schools, but it is an issue for some in Minnesota (10). This will be an issue to examine before writing any Montana legislation. The important point is to spell out in the legislation which funds the charter school is entitled to and which ones they are not. Then it will be up to the people who want a charter school to determine how to set their budget to make the new school work.

The fourth question, of what type of local school governance structure should the charter schools have, seems to be one of how much should the legislature prescribe. Again the past history is quite varied, but it may be that this is one place where the legislature could give the state board the authority

to accept a variety of innovative management schemes as long as the board was convinced that the management team could run the school fiscally and legally and that the team had the students' best educational interests at heart. Also, the proposal would have been approved by the district board of trustees as a further check and balance.

The fifth question, of how to overcome potential resistance from local boards and teachers' associations, is one most important to successful passage of any charter school legislation in Montana, since both the Montana School Boards Association and the Montana Education Association and, to a lesser degree, the Montana Federation of Teachers have power with the Montana Legislature. No legislation should be attempted without involvement of these groups in its development or, at least, receiving feedback early on (11). Teachers, of course, have much to gain from charter school legislation in that they may become part of a school-based management team with more control than they have traditionally had. If the model of the alternative standard sign-off by the local boards were used, the school boards might well be major supporters of the legislation. They could gain more local control by developing a performance-based charter program (11). It will be important to allow for public input into the granting of the charter as in the case of California, which requires a minimum number of signatures from existing teachers and a public hearing to determine public support (12). Clearly any charter school legislation needs to include an orderly process with public and professional educators' involvement to create even the application.

The sixth question is a big one: should private schools be considered for inclusion? It is definitely political. The issue has been resolved differently in different states, however, all states generally agree on the fact that charter schools can not charge tuition, can not be selective in their admission policies, and generally that state funds will not support any religious instruction. Because state funding of public education has been so tight in Montana since 1986, it would seem difficult to free public funds to go to non-public programs, and again it is so political that inclusion of private schools, in the author's opinion, could sink any chance of passage of charter school legislation.

The seventh question on Bierlein and Mulholland's list is certainly of interest considering the efforts of some in Montana toward school consolidation. In fact, in Minnesota where efforts are underway to consolidate schools to improve the economics of scale (12) some citizens and teachers have seen charter schools as a way of keeping their small schools. Undeniably in

Montana, where the input standards are often the most difficult for small schools to meet, this could be an issue.

The question of the state providing technical assistance is an issue for potential Montana legislation as well. The Office of Public Instruction, like all other state agencies, has taken significant cuts from the legislature in the last eight years. If a new program such as charter schools is to be offered, the Office of Public Instruction will need both funding and time to develop some expertise so that it can provide the appropriate technical assistance. To not plan for this in the legislation would seem to this author to be irresponsible.

As to the first question the author posed, for how long should the charter be given, the alternative standard already speaks to that. The Board of Public Education grants a school an alternative for one year, with the potential for an additional five-year renewal. Given the changes in conditions in Montana, in personnel, and in education, any longer than that would seem to be irresponsible. There is nothing to say that the school could not be granted additional five-year renewals if all were going well, but it does preclude any group from getting an initial 99-year charter which would not seem wise.

Finally, what outcomes should be met? It would seem if the school could show that it had a curriculum in place which met the required core program goals in the accreditation standards, appropriate assessment measures which could show that the curriculum was working, then it should be given a charter. The criteria would have to be developed between the school and the state board (probably attaining certain levels of success in assessment measures, including a high level of attendance), and this progress would have to be reported to the state board and the school's constituents, as Wyoming requires. This would seem to be a reasonable approach.

The Montana School Accreditation Standards would not have to undergo any changes to accommodate charter schools. Given the accreditation standards which Montana currently has in place, including the alternative standard, it would seem to be a small step to draft and pass legislation to allow the Board of Public Education to waive the input education laws and grant charters to well thought-out programs, for up to five years. In Montana the move from the current accreditation standards to allowing charter schools appears to be a natural bridge if the education community wants it. The major questions still to be answered are, will there be any takers and will it make any significant difference to the whole of Montana public education.

APPENDIX A

States with Performance-Based Accreditation*

Alabama
Colorado
Florida
Illinois
Indiana
Iowa
Kansas
Massachusetts
Maryland
Michigan
Mississippi
Missouri
Nebraska
New Mexico
New York
North Carolina
Ohio
Oklahoma
South Carolina
Tennessee
Texas
Vermont
Virginia
Washington
West Virginia
Wyoming

*As of February 1994, according to the Education Commission of the States.

APPENDIX B

States with Charter School Legislation*

Arizona
California
Colorado
Georgia
Hawaii
Kansas
Massachusetts
Michigan
Minnesota
Wisconsin

*List from the Education Commission of the States.

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SCHOOL-LINKED

INTEGRATED SERVICES

by

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Executive Summary

Proposals to link health and social services to schools are increasingly at the forefront of the public policy agenda. The interest in school linked services extends beyond the scope of government to members of the schools, agencies and businesses. This paper presents an overview of changes occurring within Montana families and presents a case study of a 'fragile' Montana family. National collaboration research and activities are highlighted. The current status and progress of school linked integrated services in Montana is reviewed, including a Danforth initiative in Bozeman; school based family resource centers in Polson, Great Falls, Missoula; the Department of Family Services Partnerships to Strengthen Families project; youth information teams across the state, and the Interagency Coordinating Council on Prevention.

National trends for the future support ongoing requirements for integrated collaborative efforts. In Montana several opportunities for continued efforts exist, including: Goals 2000: The Montana Plan; Partnerships with Drug Free Schools and Crime Prevention; and the ongoing need for pre-service and in-service training for staff across agencies to promote collaborative services. Proposed new initiatives through the Interagency Coordinating Council on Prevention and the Community Impact Program will allow increased opportunities for school-linked services.

Finally, several recommendations are made to support continuing school linked integrations including making a commitment to preventive services; providing funding for the Interagency Coordinating Council on Prevention; providing support for community based intervention efforts; revising regulations to allow greater community flexibility in meeting family needs while maintaining accountability; and gaining general public support for school linked prevention efforts.

Specifically, the recommendations are,

1. make a commitment to invest in preventions-oriented services;
2. provide funding for the Interagency Coordination Council for Prevention;
3. fund community school linked integration efforts through the Community Impact Program;
4. assure ongoing pre-service and in-service training; and
5. enlist public support.

Statement of the Problem

Most children are growing up in families far removed from the 1950's stereotype that shaped our social and legal systems. In 1950, over 60% of families had a father earning a living, a mother at home, and at least two school-aged children, all under one roof. Today, according to the Children's Defense Fund, only 7.2% of families fit that profile. At least two million school-aged children have no adult supervision at all after school. Two million more are being reared by neither parent. An estimated 25 million children were reported abused or neglected in 1993--an increase of more than 147% since 1979.

According to statistics provided by the Children's Defense Fund,

Every 8 seconds of the school day an American child drops out.
Every 47 seconds an American child is abused or neglected.
Every 67 seconds an American teenager has a baby.
Every 7 minutes an American child is arrested for a drug offense.
Every 30 minutes an American child is arrested for drunk driving.
Every 36 minutes an American child is killed or injured by guns.
Every 53 minutes an American child dies because of poverty.

In 1950 we spent 2% of the federal budget on education; in 1994 we would have to spend $9 billion more than we do to reach 2%.

Also, according to the Children's Defense Fund, rural children are very similar to inner-city children when dimensions of poverty, education, health, and access to social services are considered. Regardless of previous images of idyllic rural life, rural children are poorer, less educated, and generally worse off than other American children. Statistics like these make it evident that over the next decade public schools will increasingly have to serve children whose needs go far beyond the school classroom.

There is no doubt that "institutions tend to be poor mothers." Consequently nothing in this paper is meant to suggest that schools or institutions take the primary responsibility for the well-being of children. In fact, as we move into the 21st century, Northwest Regional Educational Laboratory proposes that in order for schools to address successfully the educational and non-educational needs of children and families, the following two underlying social paradigms must be established: 1)"The role and responsibility of families must be re-established as the primary institution assuring the well-being of the individual." 2)"An integrated system for

delivery of public service must be developed, one that focuses on and supports the efforts of families, rather than treating recipients as isolated individuals" (NWREL, 1991, p. 10).

In United We Stand: Collaboration for Child Care and Early Services, Kagan addresses the social context from a body of research that highlights the interrelatedness of individual, family and community. These once-discrete entities have become more intertwined. Not only do families and communities have a direct stake in children, but so also do churches, neighborhood groups, local businesses, civic clubs, social service and health agencies, youth groups, the police, and local politicians. When we impact one aspect of a child's life, such as education, we impact all others. This "ecological" approach requires that service delivery systems no longer operate in isolation.

Charles Brunner, in his work, Thinking Collaboratively (1991), explores the need for integration of education and human services. In this political context, Brunner sites L. Schorr's (1988) work as a guide for the development of new state agencies or structures that are not constricted within categorical boundaries, related to professional disciplines or bureaucratic needs, but based on the need to bolster, support, and strengthen families and children.

In an effort to improve the quality of education, the National Governor's Association initiated the National Education Goals aimed at improving education by the year 2000. This year, the goals were codified in the federal Goals 2000 legislation. The first goal states that,

> All Children Will Enter School Ready to Learn. This goal sets the stage for comprehensive services to children and requires agencies, schools, and community organizations to link their services. The growing support for the Head Start program demonstrates the recognition that investing in high-quality programs for young children can make a difference. According to longitudinal research, for every $1.00 invested in early childhood programs a return of $7.16 is realized in savings for remedial education, delinquency, crime, and other social costs.

In Together We Can: A Guide for Crafting a Profamily System of Education and Human Services (1993), Melaville and Blank offer a five-stage collaborative process which can enhance our ability to change the system. They go on to state,

> From time to time, every family, no matter how self-sufficient, needs help. Families with strong support networks and ample resources can find the help they

need... It's not so easy for families with limited resources. Separate, unresolved problems grow into complicated tangles that affect every family member and put children at high risk of failing in school and later life. In the process, everyone loses.

In Within Our Reach: Breaking the Cycle of Disadvantage, Lisbeth Schorr emphasizes that this is a time of unprecedented concern for the family's welfare. It is also a time of crisis of confidence about our institutions and whether they can be made to work and be mobilized to solve our problems. Schorr discusses changes in our families: smaller families, isolated from loved ones; single mothers; and smaller family incomes. Schorr stresses that moving out of poverty did not previously require the skills it does today. Easy-to-find low skill jobs are disappearing and the days of being able to support family without school skills are gone. Addressing these issues will require integrated efforts.

Across the nation there are numerous examples of school-based integrated service models. Perhaps the most comprehensive and well-known reform, however, is the Kentucky Family Resource and Youth Service Center (FRYSC) program established through the Kentucky Education Reform Act (KERA) in 1990. This program established 373 centers: 259 in rural areas, 81 in cities, and 33 in suburbs. The program is part of major legislative reform of education in Kentucky and is designed to reduce barriers to learning through school-based family support and parent involvement initiatives. Community mental and physical health professionals, social security intake workers, and employees of many other agencies provide on-site services. The philosophical foundation is that no one agency can do the job alone.

The New Jersey School-Based Youth Services Program is another similar program with 29 sites statewide. Texas Communities in Schools has 13 sites throughout state. Oregon's programs have benefitted more than 10,000 families with its imaginative Together for Children program.

Schools of the 21st Century is a program developed by Yale University which, through school resource centers, links parents with health care, nutrition and other services that parents may need during the first three years of a child's life. Before- and after-school child care and educational enrichment programs are available for children ages five to twelve. Such schools have been successfully implemented in Connecticut, Missouri, Texas, Mississippi, Virginia, and Wyoming.

Governors throughout the U.S. are creating cabinets with titles like "Families and Children Cabinet Council" in Colorado or West Virginia's Governor's "Cabinet on

Children and Families." The purpose of these two and other similar efforts is to reinvent government by changing the current delivery system from deficit models to ones that promote health, development, and well-being within the families, and by shifting from crisis oriented services to those that focus on prevention and early intervention.

Most examples of school-linked programs are not statewide initiatives, however. New Beginnings in San Diego, California links city and county agencies with school systems in their service to kids. Leadville, Colorado is an exemplary example of a community-based effort to link all social services for families and schools. Numerous other collaborative efforts exist throughout the nation. United We Stand: Collaboration for Child Care and Early Education Services describes these programs in terms of their goals, history, membership structure and accomplishments. This book serves as a great reference for persons seeking an answer to what is working.

Although it is impossible to predict what will happen in Congress, we can look at what has been happening with legislative proposals to support school-based services. The proposed initiatives are divided between those that give the major responsibility to the health system and those that would expect the educational system to predominate. The main thrust of much legislation, though, is to support local community partnerships, which must include schools, local health care providers, and community-based youth-service agencies. These initiatives would stimulate states to develop interagency agreements, and to initiate a community planning process at the local level. The primary purpose in all these efforts is to serve better the children and families who are in need. However, there may well be a secondary purpose in terms of reduced costs. It would seem logical that when resources are pooled, overhead costs can be reduced which makes more funds available for direct services.

Montana Perspective

History

As is the case in the rest of the United States, the experience of growing up in Montana is very different than it was just a generation ago. Sweeping social and economic changes since the 1960's have fundamentally altered the form of many families and have created the dramatic entry of women into the paid labor force. The declining economic status of many families with children, and particularly single-parent families, has been reported and analyzed. Behind the statistics are real parents and real children. It is becoming apparent that the complexity of the issues facing families, especially those living in poverty, is rapidly increasing. These families

require solutions that support the family as a unit and that help to foster the role of the family as the primary nurturer and educator of and provider for its dependents. In order to meet these complex needs, services to families need to be delivered in an integrated, respectful manner.

The following case study depicts an ever-more-common scenario in our state:

A Fragile Montana Family

Joe and Marie Casey live in Sumtown, Montana. Joe, in his mid-thirties, has been laid off for two years from his job at a local wood products mill. His wife, Marie, has been trying to make ends meet by working as a nurse's aid at the local nursing home during the day and as a part-time fast-food laborer at night. Joe and Marie have three children: Sally, age fifteen; Dick, age nine; and Jane, age three.

Joe is very depressed about his inability to find meaningful work. A number of people in Sumtown have seen him drunk as early as 4:00 p.m. Joe's substance abuse problems keep him out of the home for long periods of time. Consequently, when young Dick comes home from school, no one is there to meet him, assist him with his homework, or ask him about his day at school. Jane is left for hours with a local home care provider. The provider has talked to Marie about Jane's constant ear infections, but with the family's very limited income, Marie is ineligible for free medical care, which in any event is not readily available in Sumtown. Child care is also a major cost.

Dick's teacher has sent home notes indicating that he is not progressing well in school, due to his many absences this year. Marie's limited literacy skills prevent her from assisting her son with his studies, and also limit her potential to move out of low-paying service industry jobs. She dropped out of school in the tenth grade. Marie leaves for work before Dick goes to school and returns home long after he has returned. Although Marie is worried about Dick's poor school performance and Jane's earaches, her most urgent concern is about her daughter, Sally. Sally has always been a high achiever until recently, when she began to spend a great deal of unsupervised time with her friends and little time with her family. Marie is worried that Sally, like herself, will become a teen mother. Sally is already in trouble with the law for shoplifting, and Marie confides that she and Sally barely communicate (Nissani and Haggens, 1992).

The Casey family is not presently experiencing a serious crisis. However, there are certainly indicators that this family is in a "fragile" state. Given our existing

fragmented system of social, health and education services, this family will find it difficult to find the social, economic, medical and psychological support it needs to strengthen its resources against difficulties and crises it may be forced to face in the near future. Fragile families find it difficult to nurture healthy growth and development of their dependents. As a result, we increasingly find larger numbers of children requiring special interventions and support.

Current Status and Progress

Montana schools are finding it increasingly difficult to successfully educate children. Many children and families are experiencing increasing poverty, and decreasing medical and social supports necessary to insure their health and well-being. Across the state, schools are recognizing they cannot meet these complex needs alone and numerous school-linked integrated service efforts are underway or in the initial stages.

A number of national/state linkages with private foundation funding has helped Montana move forward with school-linked efforts. The MSU Early Childhood Project, with funding from the W. K. Kellogg Foundation, in 1992 provided support for ten community teams to address integrated service delivery. These community efforts indicate that there is no "cookie cutter" mold for communities to better serve families, but that schools must link to human services for efforts to succeed. Many communities have similar problems--lack of time, turf issues, and insufficient funding and knowledge about resources available in the community. In several of these efforts schools have provided leadership for integration of services.

The Danforth Foundation recently selected Bozeman and seven other communities nationwide to participate in a national "Success for All Children" project, addressing collaborative efforts for improving the well-being of all children from birth to nine years of age. This project, under the leadership and of Superintendent Paula Butterfield, has convened a community interagency steering committee and will be developing a community action plan for school-linked services.

Schools are recognizing the critical importance of the years prior to school entrance, and have a growing concern for the important role early care and education programs play in assuring all children enter school "ready to learn." Assuring that children enter school "ready to succeed" requires that parents have access to the comprehensive health, social, and educational programs which are available to help parents meet these needs. Integrated service efforts have been most clearly demonstrated for young children with disabilities through interagency service

agreements, and can serve as a model for other school linked efforts.

In the policy realm, the 1993 Montana Legislature enacted S.B. 34, "An act creating an interagency coordinating council for state prevention programs and services for children and families in Montana." The Interagency Coordinating Council on Prevention (ICC) is made up of representatives from all branches of Montana state government that provide social services to children, youth, and families. S.B.34 directs the ICC to develop plans for a comprehensive and coordinated prevention delivery system designed to strengthen the healthy development, well-being and safety of Montana's children, families, communities and individuals. S.B.34 also charges the ICC to explore financing options for prevention programs and services.

In Montana we are extremely fortunate to have a number of programs and individuals working to identify, develop, and demonstrate successful integrated services projects. The following is a sampling of innovative efforts underway; it is not an exhaustive list.

1. School-Based Family Resource Centers
   In Polson, Great Falls and Missoula, school-based family resource centers have provided concrete strategies for integrating services to families through the schools. Coordinating funding from a variety of sources, these family resource centers reflect the growing national family support focus.

2. Department of Family Services Partnership to Strengthen Families
   The 1993 Montana Legislature gave the Department of Family Services (DFS) the authority to develop programs on the front end of the child welfare system. This shift in state policy means that communities can build programs to support families to prevent child abuse and reduce the need for foster care rather than waiting to treat the aftermath of severe family crisis. The Department's new "Partnership to Strengthen Families Project" targets 1) high risk families with children ages zero to three years; and 2) families referred to DFS whose children are at imminent risk of removal from their home. One million dollars will be invested in community family support programs during 1994-95. To qualify for funding, communities must submit collaboratively-designed family support plans, which must include schools. Proposals are under review for each of the DFS regional areas.

3. Youth Information Management Task Force of Yellowstone County
   The Youth Information Management Task Force of Yellowstone County was

established to make relevant case materials available to all agencies involved with referred youth and to share information in order to coordinate case management. This integrated effort provides information from a wide variety of agencies concerned with or providing treatment and/or intervention services to troubled children from distressed families. The shared mission is to provide for the enhancement of information sharing and services for K-6 children who are denied adequate educational opportunities by those responsible for their care. This mission is carried out through the legal exchange of information among agencies concerned with a youth who is eligible for referral. The intent is to devise a response to the youth before a crisis stage is reached. These teams have been adapted by other communities across the state.

Trends for the Future

All indications support increasing requirements for integrated, collaborative programs. The ICC makes responding to the challenge posed by increasing requirements for demonstrated collaborative integrated efforts possible for Montana. Several efforts underway provide opportunities for Montana to address these efforts:

1. Goals 2000: The Montana Plan
   The Office of Public Instruction and the Governor's Office recently released plans for the implementation of a Goals 2000 Task Force to be appointed by the Governor to address improving education in Montana. These efforts will begin in the fall of 1995.

2. Partnerships with Drug Free Schools and Crime Prevention
   The amount of federal funds available for supporting "drug free" activities continue to increase. In addition, new federal crime prevention funds will be available which target school-linked programs.

3. Need for Pre-Service and In-Service Training
   There is an emerging need for training across agencies and professions to prepare staff to work in a collaborative manner. Partnerships with higher education will be needed to assure pre-service and in-service professional development for integrated service delivery.

Solutions for the Casey Family

Collaborative approaches that create a "seamless" system of support for families can offer solutions to families like the "Caseys." Given our current fragmented

system of social services, the "Caseys" would have to fill out countless forms to access child care assistance, medical attention for Jane, after-school care for Dick, and classes for Marie. Each member of the family would be treated as an individual with little or no consideration for the impact of the treatment on other family members.

Without help, Dick is at high risk of being unsuccessful in school and Sally is in serious danger of dropping out of school. Jane may start school with serious learning delays. Neither Dick's nor Sally's teacher may be aware of the family's complex and critical situation. Both teachers and parents will be frustrated by a lack of communication. Fragmented services may necessitate that Marie spend a great deal of time chasing resources for her family as it falls further behind.

If comprehensive services were available at one location in the community, Marie would not have to travel to several locations to receive assistance. Perhaps Sally could enroll in a pregnancy prevention program, Jane could receive treatment for her earaches, Joe could enroll in a job retraining program through JPTA, Marie could complete her GED or attend literacy classes, and the entire family could enter a substance abuse prevention program. In fact, if only half of the above-mentioned services were available, the Casey family, not unlike many other low-income fragile families, would find themselves supported and with hope for a healthy and happy future (Nissani & Haggans, 1992).

Recommendations for Montana

The Interagency Coordinating Council for Prevention has been charged with the development of a prevention plan for Montana. Crime, child abuse, school dropout, teenage childbearing, drug abuse and poverty, each of these and other major problem behaviors can be studied separately, but in the real world they interact, reinforce one another, and often cluster together in the same individuals. For them, the damage begins in early childhood, becomes visible in adolescence and reverberates throughout a community as part of an intergenerational cycle of social devastation. Schools must be actively involved in all solutions.

The following recommendations are made to help Montana improve outcomes for all children through collaborative, school linked, integrated services:

1. Make a Commitment to Invest in Prevention
   While no one argues that prevention is not important, the difficulty lies in the current costs necessary for treatment. The reallocation of limited health and social services dollars is difficult in the face of individual children and families

experiencing severe problems. Broad-based prevention efforts often do not yield immediate savings in both human and financial terms. Will we pay for preventive solutions or will we pay for them in crime fighting, drug abuse, and welfare?

Prevention programs aimed at child abuse, health and quality early childhood care and education have proven to be effective in reducing later costs to society. Montana must make a commitment to invest in effective prevention programs now to avoid more costly programs later.

2. Provide Funding for Interagency Coordination Council for Prevention
   The 1991 legislature created the ICC as a structure for promoting collaborative prevention services. The ICC needs operational support to continue its work and to support statewide prevention efforts. These efforts, linked through the State Superintendent of Public Instruction, can insure schools are involved. A proposal contained in the Executive Budget for $100,000 for prevention efforts must be supported by the Legislature.

3. Provide Fund for the Community Impact Program
   The Governor is proposing to invest $8.2 million during the 1997 biennium to expand local community-based services to assure that none of Montana's children 'fall through the cracks.' These funds will allow schools and law enforcement and human service agencies the flexibility to design local solutions to meet families' needs. This proposal needs Legislative support.

   Federal and state regulations can provide barriers to integrated, collaboration services. Regulations need to be reviewed to assure communities have the flexibility to respond to local needs, while remaining accountable for the expenditure of funds through clearly defined and measurable outcomes.

4. Assure Ongoing Pre-Service and In-Service Training
   In order to offer integrated services, the need for ongoing pre-service and in-service training will be essential for staff. Partnerships with the university system must be built to assure the availability of high quality pre-service and in-service training at the state and community levels.

5. Enlist Public Support
   Any efforts to promote school linked collaborative prevention efforts must involve support from an often skeptical public. Changes in the way services are provided to Montana families will require that adequate resources are available through a variety of public and private sources to assist the transition from a treatment to

prevention approach. This will necessitate focused efforts to enlist broad-based public support.

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INCLUSION OF SPECIAL NEEDS STUDENTS

by

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Executive Summary

Over the past 20 years special education has become a separate form of education with separate certification and a whole array of specialists who provide support services. Regular education teachers have come to believe that students with disabilities are the responsibility of special educators and that these students' needs are best met by specialists. Recognizing the separateness of special education and its resulting inefficiencies, the U.S. Department of Education proposed the Regular Education Initiative (REI) to suggest ways that students with mild to moderate learning problems could be served in regular classrooms instead of pull-out programs. More recently, advocates for students with more severe disabilities have pushed for full inclusion of students with severe disabilities in regular classrooms. Advocates of REI have been concerned about the academic outcomes of students with special needs, and full inclusionists have focused on teaching social competence to individuals with limited academic potential. Both groups see the regular classroom as the best environment for producing better learning outcomes.

The interest in providing education in more inclusive settings was heightened by a series of court cases, all decided in favor of parents seeking inclusion of their children in regular education classes. In the most definitive of these cases, *Oberti v. Board of Education,* the court interpreted the federal special education law, the Individuals with Disabilities Education Act (IDEA), as a mandate for including students with disabilities in the regular classroom with supplementary aids and support services.

In an effort to do a better job of meeting the educational needs of students with disabilities and to be in compliance with special education law, school districts across the United States are experimenting with greater inclusion of students with special needs in regular classrooms. Montana has participated in this national trend, with many school districts trying various inclusion models. Montana has had an excellent history of including students with mild disabilities into regular education, but the state's record on inclusion of students with cognitive delays is less exemplary. As Montana's school districts seek to include students with more severe disabilities, a debate has developed over full inclusion. Some parents and educators are enthusiastic; others are appalled. Many are sympathetic with the goals of inclusion but skeptical about its implementation.

"Dumping" students into the regular classroom without supports is clearly

not the intention of the special education mandate, but many school districts are struggling with how to meet the special needs of students with disabilities while also responding to the needs of students who do not qualify for special programs. The keys to successful inclusion seem to be (a) providing individualized instruction, and (b) ensuring adequate supports in the regular classroom. Supplying the resources for individualized instruction and proper supports in every regular education classroom strains the budgets and staff capabilities of many districts, raising questions about how special education should be funded, how teachers should be trained and certified, and how outcomes for special education students should be measured.

A summary of policy considerations and questions related to inclusion are:

- Should special education funding be tied to the labeling of students? Can we eliminate labels?
- Should special education funds and other funds like Chapter I be used to support any student who has special learning needs, regardless of disability or economic status? Should Montana ask for waivers to co-mingle federal education funds?
- How can the state audit programs to determine whether or not students eligible for special education are receiving the individualized instruction to which they are entitled?
- How should Montana serve students with low-incidence disabilities like sensory impairments? Do we need separate residential facilities or should we spend the available funds on outreach services and short-term training programs?
- Should we experiment with ungraded schools in which all students progress through individualized curriculum and move forward on the basis of demonstrated competencies?
- How should outcomes for special education students be measured?
- How can we ensure that special education students are included in school reform processes along with all other students?
- How can the state fund mandated special education services adequately so that special and regular education are not competing for the same dollars?
- How can we prepare teachers and administrators to serve a more diverse student population? How can we support teachers and administrators more effectively with appropriate inservice training once they are in the field?
- Do we need to change certification requirements for teachers and administrators so that they are more properly trained to work

collaboratively with special and general education students?

The Debate Over Inclusive Education

Introduction

Over the period of time that special education has been mandated, "special" has come to mean separate education (George, 1992). Since 1975, students with disabilities have had the right to attend regular public schools and to participate with their peers in activities in the regular classroom (Turnbull, 1986). Even though special education students have had the right to be included in regular education, the reality has been that special education students often receive all or part of their academic instruction in separate educational environments. In addition, the special education system itself has evolved separately from regular education with separate certification for special education teachers, administrators, and an array of specialists who provide support services outside of the regular classroom (Biklen, 1985; Certo et al., 1984; Knoblock, 1982; Lusthaus, 1988; Stainback & Stainback, 1985).

Regular education teachers have come to believe that students with disabilities are the responsibility of special educators and that these students' needs are best met by specialists (Jamieson, 1984; Jones, Gottlieb, Guskin, & Yoshida, 1978; Knoff,1985). Though most students with mild disabilities spend much of their school day in the regular classroom, the responsibility for meeting their educational needs often shifts to the special education teacher. For students with more severe disabilities, there is an even greater likelihood that they will become the full time responsibility of special education and receive their schooling in separate special education classrooms (Biklen, 1988; Forest, 1987; Knoblock, 1982; Stainback & Stainback, 1988; Strully & Strully, 1985; Thousand & Villa, 1988).

Recognizing the separateness of special education and its resulting inefficiencies, the United States Office of Special Education and Rehabilitation Services in the U.S. Department of Education issued the "Regular Education Initiative" (Will, 1986). The purpose of this document was to suggest ways in which to serve students classified as having mild and moderate disabilities in regular classrooms by encouraging special education and other special programs to form a partnership with regular education and share the responsibility for educating students with special needs.

At the same time, the U.S. Department of Education sponsored model demonstration projects in which students with significant developmental

disabilities like mental retardation, physical disabilities, and autism--who were thought to need separate programs--were successfully educated in general education settings. These model projects demonstrated that educational outcomes for students with severe disabilities were better if they were educated alongside their nondisabled peers (Berres & Knoblock, 1987; Biklen, 1985; Forest, 1987; Knoblock, 1982; Pugach, 1988; Sapon-Shevin, Pugach, & Lilly, 1987; Stainback & Stainback, 1987; Strully, 1986).

By the late 1980s concern for educational outcomes for all students generated greater recognition of the need to educate students with disabilities in the mainstream of regular education where outcomes were more likely to be positive. The interest in providing education in more inclusive settings was heightened by a series of court cases, all decided in favor of parents seeking inclusion of their children in regular education classes. In the most stunning of these cases, *Oberti v. Board of Education*, the U.S. Court of Appeals for the Third Circuit in May 1993 unanimously interpreted the federal Individuals with Disabilities Education Act (IDEA) as a mandate for inclusion "if educating the child in the regular classroom, with supplementary aids and support services, can be achieved satisfactorily." The court determined that Rafael Oberti, an eight-year-old with Down syndrome who had hit and spit at other children and teachers in his kindergarten class "would not have had such severe behavior problems had he been provided with adequate supplementary aids and services."

The *Oberti* case and other similar cases have raised questions about the progress of special education. In one sense, special education has come a long way in educating students who have disabilities. Prior to the landmark 1975 legislation, many students with disabilities were either excluded entirely from public schools or, if they were educated in the system, were taught in highly segregated and separate facilities. The Education for All Handicapped Children Act (EHA) guaranteed that all children, regardless of their disability or perceived educability, were entitled to a free, appropriate education. For millions of children, this act opened the doors to the public school system.

But in another sense, special education has not realized its full potential. In the 1990s the focus is shifting from access to public education to achieving beneficial outcomes from that guaranteed education. Questions are being asked about whether students classified as needing special education are achieving what they are capable of. Are they being prepared for life after school? Are current integration practices producing their intended outcomes?

Is the separate special education system the best way to educate these students? Or should special education join general education in the reform movement that is focusing on standards, outcomes, and educating an increasingly diverse student body with individualized instruction?

In an effort to do a better job of meeting the educational needs of students with disabilities and to be in compliance with special education law, school districts across the United States are experimenting with greater inclusion of students with special needs in regular classrooms. As more and more students with disabilities join their peers in "inclusive" classrooms, a contentious debate has developed over the merits of full inclusion. Some parents call inclusion "the best thing that ever happened to my child," while others call it a "cruel sales pitch." Some teachers are enthusiastic, others are appalled. Many are sympathetic but skeptical.

The American Federation of Teachers (AFT) recently denounced the nationwide "rush to inclusion" and called for a moratorium on further efforts, except where "appropriate" (AFT, 1994). But what is appropriate? Is it appropriate for children with autism, easily overwhelmed by a normal classroom stimulation, to learn in less distracting, separate environments? Or does that merely guarantee them sheltered, less productive lives?

To support its call for a moratorium, the AFT cites a classroom in Utah with 40 students which included 10 students with disabilities, and another in West Virginia where 16 of 36 students had disabilities. According to AFT, teachers who ask for assistance have been denied reasonable supports because school district budgets are limited. Trusting inclusion to reduce special education costs, some school districts have eliminated support staff and simply returned students to the regular classroom unaided.

"Dumping" students into the regular classroom without supports is clearly not the intention of the special education mandate or the recent court decisions, but many school districts are struggling with meeting the special needs of students with disabilities while also responding to the needs of students who do not qualify for special programs. The keys to successful inclusion seem to be (a) providing *individualized* instruction, and (b) ensuring adequate supports in the regular classroom. Supplying the resources for individualized instruction and proper supports in every regular education classroom strains the budgets and staff capabilities of many districts, yet more and more educators are suggesting that inclusive classrooms may be better

environments for assuring positive educational outcomes for students with and without special needs.

After years of argument over the efficacy of separate special education and the harm done by labeling students "disabled" and removing them from the classroom, the issues remain unresolved. But growing numbers of educators have come to believe that student with disabilities should be educated alongside "typical peers," and that segregation by disability is as damaging as segregation by race (Webb, 1994). Critics of inclusion, however, express concern that "typical" students may be deprived of educational opportunities because of the inordinate demands that special needs place on classroom teachers. Other critics complain that the inclusion model is driven by an unrealistic expectation of saving money by cutting essential special education funds. The resolution of this debate depends upon a more complete understanding of the educational benefits of inclusive education and a thorough assessment of how individualized instruction can be provided in an affordable manner in regular classrooms.

National Perspective

History

Access to public education for students with disabilities is a result of the implementation of the federal special education law originally called the Education for All Handicapped Children Act (EHA). The history of the Education for All Handicapped Children Act begins with the civil rights case of *Brown v. Board of Education* (1954) in which the Supreme Court decided that separate schooling provided on the basis of race was inherently unequal and therefore unconstitutional. In the *Brown* decision, the court articulated a philosophy of integration based upon the Fourteenth Amendment which prohibits states 1) from depriving anyone of life, liberty or property without due process of law, and 2) from denying equal protection of the laws. The court reasoned that no federally protected right guarantees education, but once a state determines to provide public education, that state has granted to its citizens a property right to education (Rothstein, 1990). Thus, to deprive a child of education is to deny due process of law as well as equal protection of the laws.

Education for students with disabilities is a direct extension of *Brown*. The legal theories of due process and equal protection first articulated in *Brown v.*

Board of Education were applied to educational rights of children with disabilities in numerous law suits across the United States. In two of these cases, *Pennsylvania Association for Retarded Children (PARC) v. Pennsylvania* (1971) and *Mills v. Board of Education* (1972; 1980), trial courts enjoined states from denying education to children with disabilities in the absence of due process of law. The *Mills* case was settled by a consent decree which defined due process rights applicable to education of children with disabilities, including procedures for the evaluation, labeling, and placement aspects of the special education process (Rothstein, 1990). The due process procedures identified included a right to hearing (with representation, a record and an impartial hearing officer), a right to appeal, a right to have access to records, and a right to written notice at all stages of the process.

In disability-related cases like *PARC* and *Mills*, advocates for students with disabilities successfully argued that when a state undertakes to provide a free public education system for its school-age citizens, the state denies equal protection of the law if it treats students with disabilities differently by denying them an opportunity to attend school or by inappropriately assigning them to special education programs (Turnbull, 1986). In addition, the courts found that denying disabled students access to education unfairly discriminates against such students on the basis of unalterable and unchosen traits--their disabilities. Such discrimination is as constitutionally unacceptable as discrimination on the basis of race, economic level, gender or age (Turnbull, 1986, p. 12).

During the period of 1960-1970, many states responded to the educational needs of children with disabilities by creating special education programs; however, implementation of these programs was uneven across the states and was judged by Congress not to provide equal opportunity for education. Against this background of uneven state provision of special education, Congress determined that it needed to act to provide a basic floor of educational opportunity for children with disabilities. On November 25, 1975, Congress passed P.L. 94-142--the Education for All Handicapped Children Act (EHA)--which guaranteed a free, appropriate public education for all handicapped children, regardless of the nature or severity of their handicaps.

Equal Educational Opportunity

The federal special education law, P.L. 94-142, is based upon a concept of equal educational opportunity which is unique in American law. *Brown* and

other school desegregation cases interpreted the equal protection doctrine as requiring equal educational opportunity and therefore equal access to education for all students. In *Brown*, the court demanded that black students be given equal access to the *same* resources as whites. Subsequent court decisions have ruled that when a school system provides facilities to white children, exactly the same facilities (not an equivalent separate set of facilities) must be made available on the same terms to black children (Stevens & Wood, 1992, p. 10).

Disability-related cases like *PARC* and *Mills* and the Education for All Handicapped Children Act have expanded the doctrines of equal opportunity and equal access beyond what was outlined in the *Brown* case. In disability-related law, the right to education for disabled students has been interpreted to require that schools furnish all disabled children equal opportunities to develop their own capabilities. Thus, schools are required to provide *different* programs and facilities for pupils with different needs. In other words, the courts have concluded that children with disabilities must be given special or different treatment if such accommodations are necessary in order for the children to benefit from education (Turnbull, 1986, p.60). Disability law established a new equal access (or equal opportunity) doctrine by claiming that disabled children require compensatory opportunities--namely, access to additional or different types of resources for different purposes--in order to have genuine access to an education that is equal to that which is provided to nondisabled children.

This compensatory notion of equal educational opportunity is different from the customary one. The usual meaning of *equality* is equal access to the *same* resources for the *same* purposes. The new meaning of equality which has been established in disabilities law is "access by disabled children to different resources for different purposes" (Turnbull, 1986, p. 60). According to the courts, the major reason that children with disabilities can lay claim to special treatment is the fact that these children have disabilities which require different educational approaches in order for the children to benefit from education (Stevens & Wood, 1992, p. 16).

In addition, educational access for these children must be provided on an individualized basis, so some students with disabilities may receive no accommodations and be treated exactly like nondisabled students. Other disabled students can be treated substantially like nondisabled students, but may require some modifications or accommodations in order to participate in

educational programs. Examples of such accommodations might include interpreters for deaf students, braille training for blind students, or provision of taped materials for students with learning disabilities. A third group of students with disabilities may need to be treated quite differently from their nondisabled counterparts. For example, educating students with severe disabilities may require separate classes, using a different curriculum and different methods of instruction. This different set of circumstances may provide severely disabled students with educational opportunities that, for them, are comparable to the opportunities provided to nondisabled students who are educated in the regular classroom.

This new access doctrine articulated in the Education for All Handicapped Children Act established the precedent for requiring not only that disabled students be provided with public education, but also with education which is appropriate to their capabilities and suited to their needs. Recent cases decided by the Supreme Court, such as *Board v. Rowley* and *Irving Independent School District v. Tatro*, have upheld this new equal access approach and confirmed the requirements both for access and appropriate, individualized education that have become the foundation for special education law (Osborne & Dimattia, 1994).

Least Restrictive Environment

In *Brown v. Board of Education* the Supreme Court interpreted the equal protection doctrine to imply also that *separate* education for the white and black races is inherently unequal. Further, the Court ruled that separation of the races in educational settings deprives children of the opportunity to interact with children of other backgrounds and imposes a stigma upon those educated separately. Much the same logic as was used in the *Brown* case became the basis for claims that children with disabilities should not be excluded from school or educated separately from other children. Disability advocates argued that--as much as possible--children with disabilities should be educated in regular classrooms with nondisabled peers (Turnbull, 1986).

A key provision of the special education law--Section 1412 (5) (b)--was the concept of placement in the "least restrictive environment" which requires states to,

> Establish procedures to assure that to the maximum extent appropriate, handicapped children...are to be educated with children who are not

handicapped, and that special education, separate schooling or other removal of handicapped children from the regular education environment occurs only when the nature or severity of the handicap is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily.

This section of the law creates a strong preference for placing children with disabilities in the regular classroom by requiring that educators not only tailor each child's educational program to meet the child's special needs, but also educate the child to the maximum extent appropriate in the regular educational environment.

"Least restrictive environment" (LRE) is a legal, rather than educational, term. Several authors (Deno, 1970; Peterson, et al., 1983; Reynolds, 1962) have attempted to elaborate upon the term to give it educational significance by offering a continuum of educational alternatives in rank order, including separate special schools, resource rooms, and individual tutoring. The term "LRE" implies placement in the regular classroom as a preference, but also includes the notion of a continuum of placements, each gradually more restrictive as they differ more and more from the regular classroom environment. Although the concept of LRE is the foundation of integrated educational programming and the term LRE is used in both legal and educational circles, placement of children with disabilities in the regular classroom has come to be commonly called "mainstreaming" (Osborne and Dimattia, 1994).

The term "mainstreaming" is an educational corollary to the Scandinavian principle of "normalization" (Dybwad, 1980). Normalization suggests that people with disabilities be exposed to, and placed in, environments that approximate normal environments to the maximum extent possible in light of their disabilities. One environment is the educational setting, and special education law does require the placement of students with disabilities in the mainstream of public education (i.e., regular classes) to the maximum extent possible.

Mainstreaming has been advanced as a worthwhile educational practice on the assumption that placement of students with disabilities with their nondisabled peers would result in increased academic and social development for the students with disabilities (Birch, 1974; Christopher & Renz, 1969; Dunn, 1968; Kaufman, Gottlieb, Agard, & Kukic, 1975) as well as in a

reduction of the stigma caused by being educated in segregated special education settings (Dunn, 1968). The research on the efficacy of mainstreaming has, however, been inconclusive (Carlberg & Kavale, 1980). Several researchers have reported that mainstreaming has not resulted in significant educational and social growth in students with disabilities (Budoff & Gottlieb, 1976; Gottlieb, 1981; Gresham, 1982). However, others have shown that regular class placements can have positive effects on the development of students with disabilities (Grosenick, 1982; Guerin & Szatlocky, 1974; Haring & Krug, 1975; Macy & Carter, 1978; Voeltz,1980; 1982).

Despite inconclusive evidence of the value of inclusive education, the federal courts have consistently upheld the principle of placement in the "least restrictive environment" with a preference for placement in the regular classroom. The case of *Oberti v. Clementon* is similar in its conclusions to several other recent cases (e.g., *Devries v. Fairfax County School Bd.*, 4th Cir. 1989; *Daniel R.R. v. State Bd. of Educ.*, 5th Cir. 1989; *A.W. v. Northwest R-1 School Dist.*, 8th Cir. 1987; *Roncker v. Walter*, 6th Cir.; *Board of Educ. Sacramento City Unified School Dist. v. Holland*, E.D. Cal. 1992) which have upheld the right of a student with disabilities to be placed in a regular classroom with all necessary supplementary aids and services. In the case of *Rafael Oberti v. Board of Education of Clementon, New Jersey*, the Appeals Court for the Third Circuit affirmed a federal district court ruling that eight year old Rafael Oberti, a child with Down syndrome, be provided an inclusive education in a regular classroom in his home school. U.S. Circuit Court Judge Edward R. Becker wrote,

> We construe IDEA's mainstreaming requirement to prohibit a school from placing a child with disabilities outside of a regular classroom if educating the child in the regular classroom, with supplementary aids and support services, can be achieved satisfactorily. In addition, if placement outside of a regular classroom is necessary for the child to receive educational benefit, the school may still be violating IDEA if it has not made sufficient efforts to include the child in school programs with nondisabled children whenever possible (Oberti).

The Court of Appeals rejected each of the arguments raised by the school district against including Rafael in regular classes. As to the argument that Rafael was "too severely disabled" to benefit from inclusion, the Court, upon review of all the testimony presented in the district court, concluded,

> ...a comparison of the educational benefits of a segregated versus an integrated placement for Rafael supports the district court's conclusion that the School District's selection of a segregated placement did not comply with IDEA (Oberti).

To the School District's argument that it had no obligation to modify the regular class curriculum to the extent necessary for Rafael, the Court of Appeals stated,

> ...we agree with the district court's legal conclusion that, although including Rafael in a regular classroom would require the School District to modify the curriculum, the need for such modification is 'not a legitimate basis upon which to justify excluding a child' from the regular classroom unless the education of other students is significantly impaired (Oberti).

In regard to the School District's third argument that evidence of Rafael's behavior was sufficient to justify exclusion, the Court of Appeals stated,

> Although the School District presented ample evidence of Rafael's disruptive behavior in the 1989-90 kindergarten class, the Obertis' evidence supports the district court's finding that Rafael would not have had such severe behavior problems had he been provided with adequate supplementary aids and services in that kindergarten class, and that Rafael...would most likely not present such problems if he were included in a regular class at that time. We therefore conclude...that consideration of the possible negative effects of Rafael's presence on the regular classroom environment does not support the School District's decision to exclude him from the regular classroom (Oberti).

The Third Circuit Court has made it clear that school districts have an obligation to give students with disabilities a reasonable opportunity to succeed in the regular classroom by providing them with the necessary supports and modifying the curriculum to meet their individual needs.

The Third Circuit Court of Appeals in *Oberti* joins a number of other federal courts that have now recognized a strong preference and presumption for mainstreaming. The Third Circuit's opinion provides rigorous standards which school districts must follow and which due process hearing officers and courts will apply to determine compliance with IDEA.

The Court of Appeals reiterates that the presumption in favor of inclusion in regular classes means that the burden of proving compliance with IDEA's mainstreaming requirement is on the school district, not the parents. As Judge Becker wrote,

> ...the Act's strong presumption in favor of mainstreaming...would be turned on its head if parents had to prove that their child was worthy of being included, rather than the school district having to justify a decision to exclude the child from the regular classroom....We therefore hold that the district court correctly placed the burden on the School District to prove that the segregated placement proposed for Rafael was in compliance with the mainstreaming requirement of IDEA (Oberti).

The Court establishes a two-part test that courts must apply and schools must pass when making decisions about inclusion in regular classrooms. First, the court must determine whether education in the regular classroom with the use of supplementary aids and services can be achieved satisfactorily. Second, if the court finds that placement outside of a regular classroom is necessary for the child to benefit educationally, then the court must decide whether the school has mainstreamed the student to the maximum extent appropriate; that is, whether the school has made efforts to include the student in programs with nondisabled peers whenever possible.

In deciding whether a student with disabilities can be educated in the regular classroom, the court must consider the following three factors,

- The steps that the school has taken to try to include the student in the regular classroom;
- The educational benefits for the student in a regular classroom with supplementary aids and services versus the benefits the student would receive in the segregated, special education classroom;
- The possible negative effects the student's inclusion may have on the education of the other students in the regular classroom.

In all cases, whether the student is placed in a regular classroom or a segregated program, students with disabilities must be included in school programs with nondisabled students whenever possible.

Educational Benefit

When educational placement is being considered for a student with a disability, the placement decision is supposed to be made on the basis of the student's educational needs. In other words, the placement should be in the environment in which the student can make reasonable progress toward his or her individual educational goals.

Schools must determine whether a student with disabilities will benefit educationally from regular education placement, but academic benefit is not the only benefit to be considered. There are, the courts have concluded, intrinsic benefits to placing a student in a regular classroom such as exposure to the language and behavior models furnished by students without disabilities (*Daniel R.R.*, 1989). The *Daniel R.R.* decision uses the following example,

> If the goal of a particular program is enhancing the child's development, as opposed to teaching him specific subjects such as reading and mathematics, our inquiry must focus on the child's ability to benefit from the developmental lesson, not exclusively on the child's potential for learning to read (*Daniel R.R.*, 1989).

In addition, a placement which fails to provide appropriate inclusion, while it may be academically superior to an inclusive placement, may yet be found to be inappropriate under IDEA because of the lack of mainstreaming provided. In determining the least restrictive environment for each individual student, the benefits of regular classroom placement versus placement in a special education setting must be weighed, including a consideration of the student's overall educational experience in the regular classroom. According to the court in the *Daniel R.R.* case, "even though the child derives no particular academic benefit, integration may be beneficial in and of itself" (*Daniel R.R.*, 1989).

Appropriate Education versus Least Restrictive Placement

IDEA requires that educators not only tailor each student's educational program to meet the student's special needs, but also educate the student to the maximum extent appropriate in the regular educational environment. In addition, the law assumes that each school district will itself provide, or contract with another district to provide, a whole range of placement options, from the regular classroom with supplementary aids, to part-time placement in a resource program, to full-time placement in a special education class, to

residential or hospital placement or homebound instruction. This list of options is not exhaustive and may be modified to meet the needs of a particular student.

If a student is deemed to need a placement which is more restrictive than the regular classroom, there must be a range of choices available which must include varying degrees of restrictiveness. From among these options, the least restrictive environment appropriate for the particular student must be chosen.

The law places a heavy burden upon the school district which desires to segregate a student in a more restrictive placement. Prior to placing a child in a more restrictive setting, a determination must be made that the nature or severity of the particular student's disability is such that only special education in a more restrictive setting can address the student's needs.

While IDEA places value and emphasis both on developing appropriate educational programs and on placing students in the least restrictive environment, there are cases in which these values may be in conflict. A regular education placement may not be appropriate for all students, and it must be remembered that a school district must integrate a student into the regular program only to the maximum extent appropriate. What is appropriate in a particular case must be determined individually on the basis of the student's unique needs. For example, a student who is deaf and uses sign language exclusively for communication may benefit from a more restrictive placement with other students who sign. The student's need to use sign may outweigh the value placed on being in a regular classroom with nondisabled peers. However, for a different deaf student, the option of being placed in a regular classroom may be perfectly appropriate and successful.

The decision about placement in the least restrictive environment is to be made by the Individualized Education Program (IEP) Team which includes parents, educators, and an administrator. This decision should not be based upon the student's label (e.g., all children with mental retardation are placed in Classroom A). Instead, the decision must be made individually on the basis of the student's needs.

The Court's opinion in the *Oberti* case is particularly instructive in resolving the dilemma often faced in the choice between "appropriate education" and education with nondisabled peers. Observing that other courts and legal commentators have found a tension in IDEA between the strong presumption

in favor of inclusion and the requirement that schools provide individualized programs designed to meet the unique needs of each student, the Court declared,

> The key to resolving this tension appears to lie in the school's proper use of supplementary aids and services...which may enable the school to educate a child with disabilities for a majority of the time within a regular classroom, while at the same time addressing that child's unique educational needs (Oberti).

The decision about appropriate education and least restrictive placement must clearly be made on the basis of each student's unique needs. Administrative convenience--what would be cheaper or more convenient for the school district--is not to be a consideration in the placement decision. Instead, the focus is intended to be on developing a placement option which provides the maximum amount of time with nondisabled peers and allows the student to meet his or her individual educational goals.

In summary, IDEA and the court interpretations of its provisions describe placement in the least restrictive environment as requiring the following,

- Preference for the regular classroom;
- Removal from the regular classroom only to meet the student's unique needs or to protect the safety or educational opportunities of other students;
- Preference for the home school or the school closest to home;
- Choice made from an array of options;
- Placement not be based upon administrative convenience;
- Placement not be based on the student's disability label;
- Individual determination;
- Annual review.

Current Status

Despite the historical legal preference for placement of special education students in regular classroom settings, since 1975 public education in the United States has met the challenge of addressing the needs of students with learning problems primarily through the creation of a number of special programs. For example, in 1989-90, 4,817,503 students with disabilities were served under Part B of the Individuals with Disabilities Education Act (IDEA)

and Chapter I of the Elementary and Secondary Education Act (U.S. Department of Education, 1992, p. 294)--a 23% increase since 1976-77. To teach this greatly expanding number of students, tens of thousands of additional special educators were hired; their number rose from 179,000 in 1976-77 (Singer & Butler, 1987) to 304,626 in 1989-90 (U.S. Department of Education, 1992), which represented 13% of the U.S. teaching force in that year (U.S. Department of Education, cited in Singer, 1993). State-reported expenditures for special education and related services were just under $16 billion in 1985-86 or $18.6 billion in constant 1989-90 dollars (Chaikind, Danielson, & Brauen, 1993).

While special education was conceived as a set of programs providing individual and small-group instruction, the rapid growth of special programs has led to burgeoning enrollments and crowded classrooms in many places (see Algozzine, Christenson, & Ysseldyke, 1982; Buttram & Kershner, 1988, Tables B-1 and I-2), making a mockery of special education's historic intent to differentiate and enhance instruction for students with disabilities. Special education has contributed significantly to the pedagogical and technological knowledge base for selected segments of the student population. It has refined the concept and practice of individualized instruction, re-defined the role of parents in the education of students with disabilities, made education possible for one-half million previously unserved students with severe disabilities, and improved services for several million other students with milder disabilities. Though the achievements of special programs have moved toward the goal of effective education for those with learning problems, there is clear evidence that the system for educating these students is not completely succeeding when outcome measurements such as graduation rates and employment rates are analyzed.

For example, it is expected that about 25 percent of all high school students will drop out of school before graduation. Many of these dropouts are students with learning problems who have not succeeded in special programs. In addition to the dropout rate, recent studies and surveys indicate that up to 17 percent of all Americans are functionally illiterate. For recent high school graduates, the functional illiteracy rate is above 30 percent. A study of high school seniors found that most leave high school without the reading comprehension skills needed in college.

The consequences of this lack of success in helping students with learning problems show up in other statistics. Sooner or later these young people leave

school. Students with learning problems who have not succeeded in school are also likely to fail in getting and keeping jobs. For example, data indicate that many special education students are not likely to get jobs when they graduate. In turn, the lives of these young people are more likely to be marked by poverty and isolation.

In the face of these gloomy statistics about the outcomes of special education, a reform movement, with a variety of subgroups and factions, has been underway since the mid-1980's. In 1986 Assistant Secretary of Education Madeleine Will wrote an influential paper entitled "Educating Students with Learning Problems: A Shared Responsibility." In her paper Will suggested that students with mild to moderate learning problems might achieve greater educational success if the programs which served them were not so separate from general education. The goals Ms. Will outlined for reform of special education involved restructuring and large-scale mainstreaming, an effort which came to be called the Regular Education Initiative (REI).

Regular Education Initiative

The leaders of the REI movement had several distinguishable objectives. The first was to merge special and general education into one inclusive system. Although some proponents objected to the term merger, preferring phrases like "shared responsibilities" and "inclusive educational arrangements" (Wang & Walberg, 1988, p. 128), REI's supporters in fact were describing a fundamental restructuring of the relationship between general and special education. This reconfiguration would unite a balkanized education system. It also would circumvent the need for an eligibility process that purportedly depends on invalid test instruments and psychologically harmful labels, only to pigeonhole students into educationally questionable classifications (c.f., Reynolds, Wang, & Walberg, 1987; Reynolds, Zetline, & Wang, 1993; Ysseldyke, Algozzine, & Epps, 1983).

A second objective was to increase dramatically the number of students with disabilities in regular classrooms by use of large-scale, full-time mainstreaming (c.f., Slavin & Stevens, 1991); Wang & Birch, 1984) as opposed to the more traditional pull-out approach (c.f., Anderson-Inman, Walker, & Purcell, 1984; Brown et al., 1979; Fuchs, Fuchs, & Fernstrom, 1993).

The third objective was to strengthen the academic achievement of students with mild and moderate disabilities, as well as that of underachievers without

disabilities. As Wang suggested, "Local schools should be encouraged to experiment and evaluate the effectiveness of a variety of educational approaches in solving the widespread and persistent problem of how to achieve more productive learning for all students."

REI Tactics

REI supporters developed a group of tactics to restructure the special education/general education relationship and to move greater numbers of students with disabilities into regular classrooms. The first strategy was to obtain waivers from state and federal rules and regulations so that school districts could have increased flexibility to use special education resources in more adaptive and imaginative ways (c.f., Reynolds, Wang, & Walberg, 1987; Wang & Reynolds, 1985). A second tactic was to call for modifications in the continuum of special education services. Some advocated a merging of the funding for general and special education so that all resources could be available to all students (Wang, 1981). Others suggested the elimination of the bottom of the continuum; that is, closing separate special education residential and day schools. Finally, it was proposed that mainstreaming should be accomplished by eliminating not the bottom, but the near-top of the continuum of services (i.e., resource and self-contained classes) in favor of placement in the regular classroom with appropriate supports. As Reynolds described it,

> We need to move special teachers (of students with mild disabilities) into mainstream structures as co-teachers with general teaching staff where both groups share in the instruction. The special education teachers can...lead in such matters as child study, working with parents, and offering individualized, highly intensive instruction to students who have not been progressing well (1989, p. 10).

Though enthusiastically supported by some teachers in special education, the Regular Education Initiative prompted little notice in general education. REI-inspired activity in the 1980s changed special education in places like Vermont and Utah (Kukic, 1993), but such reformation tended to parallel rather than converge with general education's renewal efforts (McLaughlin & Warren, 1992; Miller, 1990; Pugach & Sapon-Shevin, 1987).

Inclusive Schools Movement

A newer effort at special education reform which tends toward more radical change than the Regular Education Initiative is the Inclusive Schools Movement. This movement is characterized by a desire to eliminate the continuum of placements and special education entirely and place all students with disabilities in the regular classroom. Proponents of full inclusion also favor greater decentralization of administrative power and the concomitant empowerment of teachers and building-level administrators; a fundamental reorganization of the teaching and learning process through innovations like cooperative learning and thematic teaching; and the redefinition of professional relationships within buildings (The Board of Education for the City of Toronto, 1989; The Council for Exceptional Children, 1993).

The Inclusive Schools Movement is generally led by a group of educators and parents, members of The Association for Persons with Severe Handicaps (TASH), who are primarily concerned about the rights and well-being of individuals with severe intellectual disabilities. TASH members base their full-inclusion model on the "normalization principle," defined by Nirje as "making conditions of everyday life which are as close as possible to the norms and patterns of the mainstream society" (cited by Biklen, 1985, p. 10). In the school setting, normalization means placement of individuals with severe disabilities in neighborhood schools and regular classrooms and full involvement of those individuals in the life of the school community.

TASH's position on full inclusion has had wide influence on some school districts and on such powerful groups as the Council of Chief State School Officers (1992) and the National Association of School Boards of Education (1992). TASH leaders' position on inclusion has also attracted major media attention. In April 1993, the film "Educating Peter" won the year's Academy Award for Best Achievement in Documentary Short Subjects. The half-hour film captured the challenges and rewards of including Peter Gwazdauskas, a 10-year-old with Down syndrome, in a third grade classroom at the Gilbert Linkous Elementary School in Blacksburg, Virginia.

Full Inclusion Tactics

With wide dissemination of their positions and abundant media coverage, TASH proponents of full inclusion have been successful in promoting an uncompromising position calling for *no* special education and for placing *all*

children with disabilities in the regular classroom. Quite simply, they view special education as a significant source of the problems in public education. Stainback and Stainback (1992) maintain, for example, that "because special education has operated for so long, many schools unfortunately do not know...how to adapt and modify the curriculum and instructional programs to meet diverse student needs" (p. 40). To some full inclusionists, the very existence of special education is responsible for general education's failure to accommodate the needs of many students and has made it easy for general education to rid itself of its "undesirables" and "unteachables."

Inclusionists also object to the tendency to attribute a student's learning problems to something within the student (see Stainback & Stainback, 1992, p. 32). They claim that "blaming the child" has resulted in general educators absolving themselves of the responsibility to deal with students that can be removed from the classroom for special education. Eliminating special education, say the full inclusionists, will force general education to deal with the students that have previously been avoided and, in the process, to transform itself into a more responsive, resourceful, humane system.

In order to bring about this transformation in general education, inclusionists advocate the elimination of the continuum of services in special education and the complete merger of special education into general education. Many inclusionists also envision a restructuring of schooling which features a de-emphasis, if not the outright rejection, of standard curricula (see Stainback & Stainback, 1992). The standard curriculum is anathema to many inclusionists because it creates de facto segregation within the mainstream. A standard curriculum typically becomes a focal point for the teaching and learning process: Teachers feel obligated to teach it, and students are held accountable for learning it. For most children with severe intellectual disabilities, mastery of it is usually unattainable. This means, the inclusionists reason, that mainstream teachers attempting to accommodate a wide diversity of students must orchestrate a greater number of activities and materials, substantially complicating their job. Further, these different activities and materials tend to separate students with and without disabilities, reducing the amount and quality of social interaction between them. W. Stainback et al. has suggested that in an inclusive school,

> From a holistic, constructivist perspective, all children simply engage in a process of learning as much as they can in a particular subject area; how much and exactly what they learn will depend upon their backgrounds,

interests, and abilities (1992, p. 72).

Stainback and other inclusionists believe that educators should provide students with the tools for learning; the focus of instruction should be on facilitating students' becoming actively engaged in their own learning.

Social competence tends to be more important for inclusionists than academic outcomes. The rationale for full inclusion relies not so much on educational benefit as on social development of students with severe disabilities and attitude changes on the part of their fellow students and teachers. The point of educating students with severe disabilities in inclusive settings is to ensure their normalized community participation by providing them with systematic instruction in the skills that are essential to their success in the social contexts in which they will ultimately use their skills (Gartner & Lipsky,1987). Besides developing the social skills of the students with disabilities, full inclusion is thought to improve the attitudes that nondisabled peers have about their peers with disabilities and encourage the development of positive relationships and friendships between peers (Vandercook, Fleetham, Sinclair, & Tettie, cited in W. Stainback & Stainback, 1991).

Full Inclusion Backlash

Though the inclusionists have been unusually influential on a national and local basis, their full-inclusion position has received severe criticism on a number of fronts. The American Federation of Teachers (AFT), for example, has complained vociferously that there is no reason to believe that general education can respond appropriately to all students who have previously been receiving special education (as well as Chapter 1 and English as a second language instruction). AFT's President Al Shanker suggests that it is unlikely that general education will improve so dramatically as to incorporate an increase in diversity when it has such obvious difficulty accommodating the student diversity it already has (see also AFT, 1994; Baker & Zigmond, 1990; L. Fuchs, D. Fuchs, & Bishop, 1992; McIntosh, Vaughn, Schumm, Haager, & Lee, 1993).

The whole spectrum of advocates of educational reform has also been critical of full inclusion because of its lack of emphasis on academics and standard curriculum. Many general educators have expressed disbelief that the needs of average and gifted students can be met in a classroom which also includes students with severe disabilities (Sisk, 1988).

General educators are not the only critics of full inclusion. The Learning Disabilities Association (1993) and the National Joint Committee on Learning Disabilities (1993) have claimed that students with learning disabilities sometimes require intense, systematic instruction which is uncommon in general education classrooms. In addition, advocates for students with hearing and visual impairments fiercely support special schools on the grounds that general education cannot be trusted always to provide specialized services to these children, and that it deprives many students of necessary cultural and socialization experiences (c.f., American Council on the Blind et al., n.d. ; DeWitt, 1991; National Council on Disability, 1989). Full inclusionists are generally unmoved by the claims of the advocates for persons with learning disabilities and sensory impairments, preferring instead to generalize the concept of the regular classroom as a source of positive socialization experiences to apply to all populations of persons with disabilities in the same way that it applies to individuals with severe disabilities.

National Trends for the Future

More Inclusion

The polarized debate concerning full inclusion aside, the likelihood is that there will be more inclusion of students with disabilities in regular classrooms in the future. As parents of children with disabilities become more aware of their right to ask for inclusive education for their children, they will petition schools with greater frequency for inclusive placements. Recent court decisions have made clear that parents requesting inclusion are likely to have their demands met because the courts have affirmed the preference of federal law for placement in the regular classroom.

The greatest number of inclusive placements will occur, however, on an *individual* basis, since no school district is required to have a blanket policy of full inclusion of all students eligible for special education. Some school districts may elect to have a full inclusion policy, but unless the federal law is changed, educational placements will still have to be made individually, based upon the educational needs of each child.

Less Inclusion

Ironically, as school districts include more students in the regular classroom, the resistance to inclusion on the part of administrators, educators, and parents

of general education students may get stronger, particularly if students are "dumped" into regular classes without support, if large numbers of students with special needs are placed in the same classroom, or if class sizes overall continue to increase.

More Individualization

Many see the value of the REI and Inclusion Movements as being the emphasis that these efforts have placed on individualizing and improving the quality of instruction for all kinds of students. The aspect of inclusive education which is likely to be replicated is the elimination of separate groups of students categorized by ability and the provision of equal access to valued knowledge for all students through reshaped curriculum and instruction. Some schools will become more inclusive so that they can weave norms of high expectations into the entire fabric of school life. These schools will avoid retaining students in a grade or segregating them through pull-out approaches. Instead, recognizing that some students need second, maybe even third, chances for success, they will offer mastery learning, extra periods for review of particular subjects, and extended days or school years for vulnerable students. Rather than assume that only some students need preparation for post-secondary education, these schools will prepare students for lifelong learning in formal and informal settings.

Greater Concern over Funding

Experience with inclusive education indicates that such a system of educational services does not necessarily lead to reduced expenditures on special education services. Yet in most districts which have tried inclusion, inclusionary programs by themselves have not cost more (National Association of State Boards of Education, 1992, p. 30). For example, higher personnel costs in providing in-class assistance to included students may be offset by savings in transportation costs that may be realized as a result of students returning to their neighborhood schools.

On average, educating a special education student in a pull-out or an inclusionary program costs about twice as much as educating a student in general education. However, maintaining two systems of special education (inclusionary programs and pull-out approaches) increases special education costs significantly. School districts which have not adopted a full inclusion process find themselves having to fund parallel systems--supports for fully-

included students in the regular classroom plus a fully-articulated continuum of special education services, including resource programs and self-contained classes. The overall number of dollars allocated to special education does not allow for provision of both classroom supports and pull-out programs. At some point districts have to decide how to redirect funding so that they can accommodate those students whose individual plans call for full inclusion while still allowing for the possibility of pull-out programs for those students who may need them.

Currently, special education is often a separate, categorically funded program. In order to obtain additional support for students with special learning needs, states and local districts are required to identify children and youth for services. Those districts that do attempt to provide for the educational needs of their students without labeling them for special education are subsequently punished by losing special education funds. Hence, while a district is often rewarded monetarily for placing students in highly restrictive placements, it is also penalized monetarily for trying to meet the needs of students without specifically identifying them as disabled for replacement and program purposes. As a result, many current state funding mechanisms serve as a double disincentive for districts to meet the educational needs of their students without labeling students for special education.

One of the future trends related to inclusive education may, therefore, be a re-examination of special education funding mechanisms, a process which is well underway in many states and school districts. Instead of categorical funding, many states are considering providing block grants to school districts to be used for supportive services for students who need them, regardless of their eligibility for special programs. Educators and state policymakers are exploring the feasibility of combining various funding streams to support programs delivered in the regular classroom. Potential sources of combined funding are the Chapter I, Head Start and Social Services Block Grant (Title XX) programs. In addition, the health and education systems in many states are exploring linkages through Medicaid reimbursable services that may be provided in schools. Many of the services that children and youth in special education are entitled to under IDEA, such as physical therapy and occupational therapy, may be reimbursed through Medicaid.

More Connection to School Reform

To this point the Inclusion Movement has remained focused on special

education reform, but some foresee a trend toward creating a comprehensive vision of schools as inclusive communities. This vision requires merging of two different arenas of school reform that have, until now, not been well-integrated. One is the move toward more inclusive schools; the other is the move toward de-tracking schools. Many educators working toward de-tracking still assume (erroneously) that those in special education require segregated services and cannot be part of the same restructuring. Some of those working toward full inclusion have concentrated their energies and attention on students with disabilities, often failing to consider alternatives to separate programs for those identified as non-English speaking, environmentally disadvantaged, or gifted and talented.

Inclusive schools in the broader sense of "de-tracked" schools can potentially meet the educational needs of all students while creating and nurturing a strong sense of connection, community, and interpersonal responsibility. In the future, school districts committed to high expectations and improved outcomes for all students may re-create the school environment by providing significant supports and individualization for all students within the regular classroom.

Changes in Professional Roles

Another impact of school reform and changes in special education delivery is likely to be placement of a higher priority on teacher training and retraining. Those states and districts that are engaged in reform activities are realizing the need for teachers to be taught how to cooperate and collaborate. In addition, teachers must be given the time to plan together and work out schemes for providing in-class supports. Furthermore, the states and districts most successfully involved in special education reform realize that teacher training is not a one-time activity, but rather must continue throughout a teacher's career.

Many general education teachers in the schools today never expected to encounter students with severe disabilities and have never received training in how to incorporate a student with very special needs into regular classroom activities. In addition, many special educators are used to providing remedial instruction in isolated settings; they do not have the technical or interpersonal skills necessary for collaborating on a regular basis with general education staff.

In some cases, teacher certification will also change along with teacher training. Regular classroom teachers may receive more preparation in

specialized teaching techniques, and special educators may be involved in more practicum experiences in regular education. Certification in general education may have stronger requirements for special education background, and special education certification may require more training in consultation and general education practices. Some states that have not done so in the past are moving toward more generic, less specialized, special education certification so that special education teachers are better prepared for the broader spectrum of students in general education, as well as the specialized needs of identified special education students.

Greater Emphasis on Pragmatic Solutions

In the future the full inclusion movement and school restructuring efforts are likely to become more pragmatic and less ideological. The focus will become more effective teaching and better outcomes for students. Special education will have to re-define its relationship to general education with a sense of what is possible. General education will need to develop respect and understanding of special education's traditions and values and the law that undergirds them. Educational leaders and policymakers will need to seek pragmatic options for providing more intensive services to students who need them while at the same time strengthening the quality of education for all students in public education.

Montana Perspective

History

The special education law in Montana was written in 1975 at the same time that the federal law was being developed. Policymakers in Montana were in constant contact with Washington and attempted to ensure that Montana's law would run closely parallel to the federal statute. The Montana legislators succeeded in mirroring the federal law in all respects, except that one aspect of the state law is more enabling that the federal one. In Montana, if a parent of a student in special education does not sign the Individualized Education Program (IEP), the parent's lack of agreement in effect stops the process and places the burden upon the school district to revise the IEP to the parent's liking or to ask for a due process hearing. Under the federal law, the process is reversed. If a parent does not agree to the IEP, then he or she must take the school district to a due process hearing.

Over the past twenty years the more enabling Montana law has given parents of special education students "veto power" over special education programs. The result has been that over 90% of eligible parents participate in IEP Team meetings (compared to a national average of 40%) and few due process hearings and little litigation have taken place (Office of Public Instruction, 1993).

Special Education Funding

When the special education law was passed in Montana in 1975, special education services for eligible students were funded 100% by the state. This system of funding initially covered all of the costs of special education, but it also led to some abuses, particularly the over-identification of students for special education and the use of special education funds to purchase general education or extracurricular materials (e.g., football equipment). In 1978 the Legislature revised the special education funding mechanism to eliminate the potential for abuse and reduced the amount of state participation in special education funding. The idea was that local districts should make up the rest of the cost, thus providing educational administrators with an incentive to curtail over-identification.

Under the new funding system state funds were allocated through an elaborate system of allowable costs based, in part, on the amount of time students spent in separate special education programs. Students who spent more than 50% of their school day in special education were not counted for regular education funding and were supported by the state strictly through special education monies. This system tended to reward school districts for serving students in more restrictive settings for greater periods of time (Special Education Funding Commission, 1993).

Despite the reduction at the state level of funding for special education, many school districts continued to put no money or little money into special education programs. Eventually some districts were paying as much as 25-30% of the cost of special education with local dollars, while other districts continued to make little or no local contribution.

Special Education Population

From the inception of special education, Montana has tended to identify about 10% of its school population as eligible for special education. The

incidence figures for specific disabilities have paralleled the breakdown by category at the national level, with 50% having specific learning disabilities, 23% speech or language impairments, 12% mental retardation, 9% serious emotional disturbance, and 6% sensory or other health impairments. Currently Montana serves approximately 15,000 students in special education programs from age 3 through 18 (Office of Public Instruction, 1992).

Placement in the Least Restrictive Environment

Montana, like many of the Western states, developed few separate or private school options for students with special needs. Billings and Great Falls were the only school districts to establish separate schools for students with more severe disabilities. Because most school districts in Montana are very small, students with severe disabilities were generally served in their home schools because no other option was available. Some school districts, like Glasgow, had a history of sending more severely disabled students to another district for service, but most districts served their students with severe disabilities in their community. Billings and Great Falls both closed their separate schools in the mid-1980s and placed the more severely disabled students in neighborhood schools.

Montana also has a history of not placing students with disabilities in institutional settings. In the 1970s, the Boulder River School and Hospital (now called the Montana Developmental Center) housed over 1,000 residents with mental retardation and other related disabilities; some of these residents were children. But during the de-institutionalization movement most Boulder residents under the age of 18 were placed in community-based settings. Since 1978 very few children have been placed at the Montana Developmental Center; most children with developmental disabilities reside in their natural homes or in foster care, with a few being placed in community-based group homes (Developmental Disabilities Division, 1992).

The Montana School for the Deaf and Blind in Great Falls used to serve hundreds of children with sensory impairments in a residential setting. Children as young as three were sent to Great Falls for training in Braille and mobility or in sign language. In recent years, however, the trend has been away from placing sensory-impaired children who are cognitively normal at the Deaf and Blind School. MSDB now serves fewer than 100 students, most of whom have multiple disabilities and cognitive delays as well as sensory impairments.

The disability area in which Montana has done the most residential placement has been that of emotional disorders. Montana has never had a separate public mental hospital for youth. Some children with mental disorders used to be sent to the adult State Hospital at Warm Springs, but commitments of children to that facility have been rare. More frequently, the state has paid for residential placements in private facilities in Montana (e.g., Yellowstone Treatment Centers, Shodair Hospital) and in programs out-of-state.

In Montana, students with mild to moderate disabilities spend 80 to 90% of their school day in the regular classroom, attending a pull-out resource program for one 30- to 60-minute period per day. On the basis of placements for students with mild disabilities, Montana has been ranked nationally as among the top ten states in terms of less restrictive placements. However, students identified as having cognitive delays or more severe disabilities have been more likely in Montana to be placed in separate, self-contained classes. In fact the Association for Retarded Citizens (ARC) has awarded Montana an F rating for placement of students with cognitive delays in the regular classroom (ARC, 1990).

Interest in Full Inclusion

In the past ten years, there has been a lively interest in Montana in including students with disabilities more fully in general education. In 1984, a group of parents in Billings founded Parents, Let's Unite for Kids (PLUK), a statewide organization for parents of children with disabilities and chronic illnesses. Through its newsletter, PLUK has informed parents about their rights under the special education law and has kept its constituents abreast of developments in the Regular Education Initiative and the Full Inclusion Movement. In 1986 the parent organization was instrumental in passing legislation in Montana which mandated preschool special education. In 1989 Dr. Thomas Powell joined the faculty in the Education Department at Eastern Montana College where he rose quickly to become the Dean of Education. Dr. Powell, as a member of the national board of TASH, is a strong advocate for full inclusion. Through his influence, inclusive practices began to be infused into the curriculum for teacher training for both special and regular educators.

During this same period, faculty at the University of Montana in Missoula operated an inclusive preschool program called Co-Teach which was widely influential in the implementation of the preschool mandate and of inclusive

practices in preschool programs.

The Office of Public Instruction supported the interest among parents and educators in inclusion practices by training Inclusion Consultants to provide inservice training for educators wishing to include students with special needs into the regular classroom. Both the Comprehensive System for Personnel Development (CSPD) State Committee and the State Special Education Advisory Panel adopted inclusion as a topic for inservice training and teacher development.

Inclusion Court Case

In 1990-91 Montana had its own inclusion court case which was tried in state court. Norman Means, a seven year-old child with autism, was attending Lolo Elementary School. His parents, Kathy and Daniel Means, wanted Norman to be placed in a regular first grade class for his instruction, but the school district refused such a placement because the school staff believed "that Norman would benefit most by receiving individualized academic instruction in the more restrictive environment of the self-contained classroom, with Norman participating in other academic areas as deemed appropriate by the regular education teacher, special ed teacher, the parent, and the evaluations done every six weeks" (Means, 1991). The parents took the disagreement about Norman's placement to a due process hearing in which the hearing officer ruled in the parents' favor. The school district appealed in state court where the district lost for a second time. The state court ruled that federal special education law creates "a statutory preference for mainstreaming and that the burden of proof is on the moving party, the school district" (Means, 1991).

The judge ordered that Norman be placed within 30 days in a regular first grade class with all necessary supplementary aids and services. In addition, the judge appointed a monitor with expertise in special education to oversee the implementation of Norman's program to ensure that the supports provided to him met his needs. Further, the Lolo school district was ordered to modify the curriculum to meet Norman's unique needs and to implement the goals and objectives in his IEP in the regular classroom. The judge also required the Office of Public Instruction and Parents, Let's Unite for Kids (PLUK) to provide inservice training on the least-restrictive environment to the faculty and administration of Lolo Elementary School.

Because of the Means case, Montana has its own legal precedent for placement of a student with more severe disabilities in a regular classroom. The Montana judge used the same logic in his decision as has been utilized by federal judges in the *Daniel R.R.*, *Holland*, and *Oberti* cases. The Means case leaves no doubt that school districts in Montana will be held accountable for the placement standards set in *Oberti*: (a) preference for regular classroom placement, (b) provision of all necessary supplemental aids and services, and (c) individual interpretation of educational benefit.

Current Status

The current status of Montana in regard to inclusive education is less contentious and muddled than in other states where restrictive placements have been more common. In states which have invested a great deal in separate facilities or where systems of private special education have developed, trends toward greater inclusion in general education are being vigorously resisted by disability groups, regular educators, and teacher unions. Since Montana does not have an investment in separate facilities or private schools, movement toward more inclusive practices represents a less drastic change. Nonetheless, the inclusion movement is receiving mixed reviews in Montana.

Some school districts have enthusiastically adopted inclusion. The Corvallis School District, for example, has adopted full inclusion practices for grades K through 12 and has become a model district for the state. Kalispell, Great Falls, Bozeman, and Billings have all adopted their own versions of inclusion with Bozeman making the greatest strides toward fully including all students. Other school districts, particularly in Eastern Montana, have continued to place students with cognitive delays in segregated classrooms and resisted moves to include students in regular classrooms.

The Montana Education Association, which represents the majority of Montana's general and special education teachers, has made public statements in favor of inclusive practices but has also spoken out against the practice of "dumping" or overloading classrooms with special needs students. Inclusion has become a topic at the bargaining table in several communities where union representatives have proposed reducing overall class size when students with special needs are to be included.

Special Education Funding Change

In 1992, Superintendent of Public Instruction Nancy Keenan appointed a Special Education Funding Commission to review the mechanism used by Montana to fund special education. The Commission included a cross section of administrators, educators, and parents from large and small school districts. The group met for almost a year and developed recommendations for changing the funding system which were eventually adopted by the 1993 Legislature.

The Funding Commission's recommendations changed Montana's funding system from one that relied on the amount of time a student was served in special education to a block grant system which did not rely on how many students were identified or where they were served. Under the block grant system, school districts were assumed to identify about 10% of their student populations as needing special education. Each district was allocated an amount based on the 10% identification rate. Districts with special circumstances that caused them to have more than the expected number of special education students (e.g., the presence of a children's group home) were allowed to request supplemental funding which would be provided on a pro-rated basis and had to be matched by the local district. In addition, related services were also to be funded through block grants to the special education cooperatives that provide these services.

The new funding system was intended to provide school districts with greater flexibility in how they serve students with disabilities. The dollars could follow the child and could be used to provide supports in the regular classroom instead of in a separate program. The new funding system has only been in place for one school year, but preliminary reports indicate that it is having the desired effect of giving districts greater flexibility in how they serve students.

Montana Trends for the Future

More Inclusion

Montana can expect to see the same trend that is being observed nationally--as parents become more fully aware that their children have a right to be in the regular classroom, more and more parents will request such a placement and will insist that appropriate supports be provided in the regular classroom. For districts that are maintaining pull-out programs as well as

addressing some inclusion in regular classes, the strains on general-fund budgets will become more and more acute.

More Emphasis on Outcomes

In general, Montanans are proud of their education system and have reason to be so. Montana usually ranks in the top three or four states on national test scores and has a high graduation rate, and graduates who go on to college tend to do well in their chosen fields. However, the picture for special education graduates is less rosy. As in other parts of the country, special education graduates are more likely to be unemployed or underemployed and to have few social contacts outside of their families (Garlock, 1989). Educators and parents are questioning the value of special education if it leads to an unproductive adult life. In the future, parents are likely to be more insistent that their children's educational programs have more rigorous standards and lead to more marketable or more independent skills. Parents may demand longer school careers for the children (e.g., past the age of 18 or 21) and a greater guarantee of competency in areas where their children have potential. The likelihood is that high schools, in particular, will have to have more flexibility in programming and more instructional options in order to meet the needs of non-college-bound students.

Changes in Training and Certification

Montana allows teachers to teach special education with an undergraduate endorsement in special education. Studies conducted at Montana State University-Billings indicate that endorsement students who teach special education tend to remain in the field a short time and to express frustration and disillusionment with their experiences in special education. It appears that the amount of training and experience required for an endorsement is not enough to sustain a teacher who is called upon more and more to consult with general education teachers, modify curricula, and design behavior programs while maintaining a full resource or self-contained class caseload.

It may be that Montana will change its certification and require that special education teachers have more extensive training and a broader range of teaching experiences. In order to fulfill the consultant role that is expected in more inclusive environments, special educators will have to be much more aware of the general education curriculum and teaching techniques. They will also have to have the interpersonal skills to work closely with colleagues on

planning lessons to be delivered in the regular classroom.

General education teachers may also need to have additional preservice training in meeting the needs of a diverse student body. Of even greater concern will be the training and certification of general education administrators. Currently, administrators do not have to have any particular training in special education, yet they sometimes have heavy responsibilities for implementing special education and facilitating inclusion.

Greater Concern Over Funding

Probably the most significant trend will be greater concern over funding for special and general education. The new funding system for special education has potential for providing flexibility and encouraging inclusive practices, but if there is not enough funding overall for special education, school districts will find themselves paying for special education out of general-education dollars. Because special education is mandated and school districts are required to maintain fiscal effort or risk losing federal monies, school trustees have to go to their general fund budgets to provide required special education services. Dipping into general-education dollars causes contentious debate between parents of and advocates for general education students and parents of and advocates for special education students. When the resources are scarce, these debates turn "ugly" and special education students may be demeaned as being less worthy of education dollars.

Robert Runkel, State Director of Special Education, estimates that the special education budget for Montana will be underfunded by $9 million over the next biennium. With that level of underfunding, there will be a temptation in some school districts to eliminate some special education programs for fiscal reasons and disguise this change as an attempt at "full inclusion." In other words, as the funding picture becomes bleaker in the next two years, special education students being dumped into regular classrooms without proper supports is increasingly more likely.

Conclusion

Options for Montana

Unless federal law changes as it pertains to the placement of an individual special education student, Montana has no legal option but to provide

placement in the least restrictive environment with a preference for the regular classroom with supplemental aids and services. The state, however, does not have to adopt a policy of full inclusion; that is, the placement of all special education students in the regular classroom and the elimination of all separate or pull-out programs. What the state does have to do is confront the difficulties inherent in supporting and funding inclusive education and specialized instruction as required by law.

Education law in Montana reserves much of the decision-making power for local school boards. As long as local policies comply with state and federal law, the state does not generally interfere with local district plans and programs. This preference for local control is not likely to change. However, by changing the method for funding special education, the state has provided some financial incentives for districts to collaborate in the delivery of special education and to use more inclusive models. If this method of funding proves to be successful in achieving equity while providing flexibility in programming, then a trend toward more inclusive delivery of special education is inevitable.

The options which are less clear involve how Montana will include special education in reform efforts which are tied to outcomes for all students. Typically, standards for special education students have been set separately and are not considered in overall strategic plans for student achievement. One option for Montana might be to consider greater inclusion of special education in strategies for improving student performance. Another option to consider is whether or not Montana should go to more individualized instruction for all students, possibly including Individualized Education Programs for all students.

Policy Questions to Be Resolved

The debate over inclusive education raises a number of issues for policymakers in Montana,

- Should special education funding be tied to the labeling of students? Can we eliminate labels?
- Should special education funds and other funds like Chapter I be used to support any student who has special learning needs, regardless of disability or economic status? Should Montana ask for waivers to co-mingle federal education funds?
- How can the state audit programs to determine whether or not students

eligible for special education are receiving the individualized instruction to which they are entitled?

- How should Montana serve students with low-incidence disabilities like sensory impairments? Do we need separate residential facilities or should we spend the available funds on outreach services and short-term training programs?
- Should we experiment with ungraded schools in which all students progress through individualized curriculum and move forward on the basis of demonstrated competencies?
- How should outcomes for special education students be measured?
- How can we ensure that special education students are included in school reform processes along with all other students?
- How can the state fund mandated special education services adequately so that special and regular education are not competing for the same dollars?
- How can we prepare teachers and administrators to serve a more diverse student population? How can we support teachers and administrators more effectively with appropriate inservice training once they are in the field?
- Do we need to change certification requirements for teachers and administrators so that they are more properly trained to work collaboratively with special and general education students?

The inclusive-education debate raises some other more fundamental questions about the state of public education in Montana and the nation. There has always been a tension in American public education between equal educational opportunity and excellence. This tension surfaces again when inclusion is discussed. If inclusive education does, in fact, provide students with learning problems a better education, does it do so at the expense of average, above-average, and gifted students who receive no special compensatory education? Have we reached a point at which the available resources are so limited that rationing of educational opportunity is in order? Or are we still committed to the notion that all students have a right to a public education? Does the quality of public education matter for only some students or for all students?

In the long run the debate about school reform is not about schools at all, and including students with disabilities is not about special education. These changes are only steps toward realizing a far larger vision--an inclusive society in which differences are valued and respected and individual needs are met

within the context of the community. The most compelling question in this educational debate is not who should be included or where students should be served, but whether or not we are committed to a public education system that is the foundation for an inclusive society.

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SCHOOL FACILITIES

by

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Executive Summary

The effort to restructure public education in this country has progressed well into its second decade. During the past 15 years educators have been responding to a variety of studies which indicated that our nation's educational structure is growing increasingly less effective in providing quality education to our children. Understandably, responses to the need for improvement in student achievement have focused on instructional programs and delivery systems, with very little attention being given to the physical environment in which these improvements are to occur. Recently, results of several research studies conducted nation-wide have lent strong support to the perception that America is facing a "facility crisis" in the public schools. Additionally, we are discovering that the physical condition and appearance of the building has a great impact upon the effectiveness of the instructional programs housed within (January, 1993).

This chapter will focus on the critical need for improved educational facilities, either newly constructed or renovated to accommodate a variety of instructional delivery systems designed to provide flexibility for the future. Specifically, emphasis will be placed upon the following,

Age and condition of American school facilities;
Maintenance: results of deferred maintenance plans;
Operational efficiency;
Leadership responsibilities/strategies;
The "interface" between educational facilities and student learning;
Implications for Montana: Suggested strategies and alternatives.

In many communities throughout this nation and state, children continue to be sent off each morning to spend the day in the most unhealthy, unsafe structures in town. Not only do these schools pose a very real physical threat to those inside, but they also inhibit the teaching and learning process to a great degree. Someone once said, "A good teacher can teach school on a log." This statement is no doubt true and is a great testimony to the dedication and flexibility of our teachers. However, it stands to reason that the effectiveness of that teaching will depend in some respect on the environment surrounding the log. It is imperative that those responsible for providing school facilities view them as critical to the total educational program and not simply as places which provide shelter from the elements.

Seven suggested strategies to meet school facility needs in Montana are,

1. The Montana Office of Public Instruction (OPI) should provide significantly more leadership for construction, renovation, maintenance, and support of the state's public school facilities. At a minimum, this office should be a clearinghouse for facility information and state resources.
2. Launch a state-supported effort (utilizing prominent state and local decision-makers) to increase stakeholder awareness of the condition of the public school facilities in Montana. Importance of the ambient environment on teaching and learning must be communicated to parents and other community members with graphic, undeniable evidence.
3. School districts should insure that a reliable facility appraisal is conducted of all their facilities.
4. Provide local school districts with more significant information on alternative strategies to deferred maintenance plans and for increased energy efficiency. This should be done through hands-on workshops, seminars and staff development programs designed not only to demonstrate new and better preventive maintenance strategies, but also to foster supportive attitudes and generate greater understanding about the positive impact good, well maintained facilities have on the learning climate of the school.
5. State and local officials should work together to develop standards for insuring a healthy environment (such as indoor air quality) in every Montana public school. State mandates issued to local schools on environmental concerns should be accompanied by the necessary funds to carry them out. (The Montana Accreditation Standards should be completed.)
6. School Boards should annually dedicate funds, either a portion of their general fund or a Building Reserve Fund levied specifically for facility renovation and annual maintenance, in order to preserve the status quo of existing facilities.
7. Because of the great disparity in taxable value per student from district to district, adequately funded equalization from the state level should be available for capital improvements. Without such equalized assistance poor districts may never be able to provide adequate school facilities.

General Condition of U.S. Schools

Millions of American children attend school each day in buildings that are among the oldest, most unsafe and least attractive in the nation. Almost 75% of the school buildings in this country are at least 30 years old and more than 31% were built before World War II. Forty-three percent were hurriedly thrown together with cheap, inefficient materials in order to accommodate the baby boom of the 1950's and 60's. These schools were designed to last a maximum of 30 years. According to a 1991 American Association of School Administrators (AASA) national survey, twelve percent, or one in eight, of the school buildings in the United States provide inadequate environments for teaching and learning (AASA, 1991). Results of the survey indicated that some of the primary causes for building inadequacy were as follows: 49% were too old; almost 20% were too small; 8% were considered structurally unsound; 20% were equipped with inefficient HVAC (heating, ventilating and air conditioning) systems; and 17% were poorly insulated. Finistration (openings) also contributed to the inadequacy of their buildings. Karen Woodward, Superintendent of the Anderson, South Carolina schools, hit the nail on the head with her comments on the deplorable conditions of American school buildings, "We are asking teachers and students to operate in environments that we would not shop in our shopping malls, we would not sit in to see a movie in theaters, and we would not seek to work in on a daily basis for the majority of a year."

Although record amounts are being spent across the U.S. on renovation and new construction of school buildings (especially in the South and Northeast), we remain faced with a facility crisis. This situation has emerged not only because of old outdated and frequently poorly constructed buildings, but also in great measure, because of a lack of effective preventive maintenance programs.

Maintenance

Inadequate maintenance programs appear to have contributed significantly to the current "facility crisis" felt throughout this country. The price tag for maintaining and repairing old and poorly-constructed facilities has increased along with all other school operational costs. As a result, school officials have found themselves faced with decreased budgets for maintenance and repair. This has resulted in an estimated volume of deferred maintenance of over 100 billion dollars nationwide (Fenster, 1991). The bill for deferred maintenance

continues to grow as school districts opt to deviate from their preventive maintenance plans. When funds are not dedicated (in concrete) and actually expended for building maintenance and repair, school district facilities can only continue to decay.

Operational Efficiency

Nationwide, the cost of operating and maintaining educational facilities is at an all-time high and appears to be accelerating beyond the current rate of inflation. According to the AASA, the national public utility bill for schools increased to $7.4 billion dollars during the 1991/92 school year (AASA, 1991). This was an increase of 18% for the two-year period. When reasons for this cost escalation are examined, the primary factor appears to be inefficient school district maintenance programs. National polls of school energy efficiency indicate that more and more districts are deferring maintenance in order to pay higher utility bills. Although school officials seem to realize the positive impact efficient plant operation has on the total instructional program of the school, less than one-half of American public schools have a working plan to deal with problems of excess energy consumption (AASA, 1991). In the Western region of the U.S., over 20% of school districts surveyed reported that they had no energy efficiency program in place. Thirty-four percent indicated that they had just started a program. Indications are that the greatest shortage of effective energy programs occur in the West and Northwest regions of the U.S. When asked to identify major reasons why efficient energy programs were lacking, school officials across the nation reported that factors such as reduced overall district budgets (lack of funds) and escalated costs of instructional programs were the overwhelming culprits.

It is interesting to note that of all federal grant money spent for energy programs in the nation's schools, the greatest amounts have been spent on renovating building envelopes. The U.S. Department of Energy reported that reworking building envelopes is the least cost-effective method of energy conservation and that by spending greater amounts on energy control systems, school districts could save up to four times more money than is saved by envelope renovation. The AASA (1991) contends that when schools " defer maintenance intentionally and habitually, needed maintenance ultimately requires an increase in parts and labor; leads to premature building deterioration; prompts more indoor air problems; and means less efficient operation of the equipment." Deferred maintenance is deemed the cause of a "vicious circle" where inefficiency results in more energy consumption - which

results in more cost for utilities.

Leadership Responsibilities

There is a significant lack of information available to local school officials pertaining to educational facilities management and energy efficiency. A 1992 inquiry into the U.S. Department of Education revealed that very little information on educational facilities or energy consumption had been disseminated by that agency. A study conducted in 1989 indicated that one-third of 38 state departments of education surveyed had one person or fewer employed with responsibilities for facilities or energy efficiency (Educational Writers' Association, 1989). The same study also revealed that only three states performed periodic educational facility inspections in their public schools. As mentioned above, spending great amounts of funding on building envelopes is not cost effective. However, the AASA found that a majority of school administrators surveyed perceived building envelope measures to be as cost-effective as controls. According to the U.S. Department of Energy, this simply is not the case. Thus, it serves as a prime example of how school officials are lacking in sound energy efficiency information. As most school districts depend upon local utility companies and various other advisors to provide them with energy information, very few consider state agencies as a primary source of information. Architects and engineers provide a measure of information to local school districts. However, of all the districts which rely upon this source (approximately 20% nationwide), only about 22% ever implement the recommendations provided. According to the AASA, most indications are that good energy efficiency information and guidance are not being received by the nation's schools. The results are that functional learning environments for America's children continue to degenerate (AASA, 1991).

A Brief Montana School Facility History

In the mid-1860's Montana's earliest settlers recognized the need for educational facilities. The first territorial legislative assembly, in 1864, established a school fund. This fund established the beginning revenue framework for school districts. Counties were the source of revenue, supervision, and a tax for operating expenses (in this case teachers' salaries).

The first legislative recognition that facilities might need separate funding came from the territorial legislative assembly in 1872. During that assembly, school districts were given the authority to establish a local levy for the

purposes of building or maintaining one or more schoolhouses in their district. Apparently the intent and use of the voted levy at that time was actually for the physical maintenance and construction of facilities (Jean, 1988).

Six years prior to statehood, compulsory attendance was mandated by the territorial assembly. Recognizing with this attendance law that facilities would be needed, the territorial assembly also authorized the use of bond levies by school districts to build or provide schoolhouses for their districts (Jean, 1988).

During the four decades following statehood in 1889 nearly 2,500 school districts were established in Montana's 56 counties.

In 1929 the state legislature allowed a half mill levy for a school district building fund where there was no building. After World War II, in 1945, the legislature recognized the problems associated with deferred maintenance during the war years and allowed school districts to establish a reserve fund to meet the costs of that deferred maintenance (Jean, 1988).

The majority of school facilities built in Montana prior to 1900 were typically one- room frame schoolhouses. However the ability to bond in the late 1880's probably resulted in more substantial construction for those communities that had populations warranting facilities more extensive than a single classroom. Many structures built from the turn of the century to the early 1940's were two- or three-story masonry or concrete structures. Many of those structures are still in use today. Following World War II, the trend to one-story structures began. Many of the structures, however, were built with less substantial and less durable materials in order to fit the districts' facility budgets at that time.

1989 Survey

In 1989 the Legislative Oversight Committee on School Funding Implementation distributed a school facility survey to all school districts in the State of Montana. Madelyn Quinlan, presently on the Office of Public Instruction staff in Helena, then a legislative fiscal analyst, was the committee's lead person in gathering data from this survey. The amount of data collected is believed to be the most significant recent body of data on school facilities in the State of Montana. The surveys were mailed in November of 1989 and returned during the following month. Surveys from 258 districts representing 595 facilities were received. Along with describing the year that the structure

was built and added on to, respondents supplied the square footage of each building, the insurance value, the replacement value, the physical condition (rated from Excellent to Should Not Be Used), and the structure's ability to meet program needs (also rated from Excellent to Should Not Be Used).

For those structures built or extensively remodeled since January 1, 1980, districts were asked to describe the size of the new building, why the new building was needed, what the cost of the new building was, and how the building was financed.

In the third and final section of the survey, districts were asked if they had a master facility plan including a comprehensive schedule of maintenance and repair. Districts were also asked to rate their priorities for capital outlay for seven potential construction needs, those needs being renovation, health and safety, additional classroom space, additional staff space, additional service areas, energy conservation and roof repair.

The school facilities in Montana represented on the 1989 survey housed at that time, 54.4% of the total average number belonging (ANB) of the State of Montana. The survey included buildings which housed 57.2% of Montana's elementary students and 49.0% of the state's high school students.

Of the 595 structures represented in the survey, the physical condition of 312, or 52%, was rated either Excellent or Good, 184 of the structures, or 31%, were rated Adequate; 71 structures, or 12%, were rated Poor or Should Not Be Used. Of those same 595 structures, the ability to meet program needs was rated Excellent for 34% of the facilities, Good for 30%, Adequate for 23%, and Poor or Should Not Be Used for 12%.

The total estimated replacement value of those facilities that were poor or should not be used was approximately $65,000,000. The total replacement value of those Montana facilities that were considered adequate was $256,000,000. The total replacement value of all facilities in this survey was $961,000,000.

The 1994 Value of K-12 Facilities

School districts as large as Great Falls and as small as Spring Creek responded to the survey. Adjusting the 1989 figures for a rate of inflation of 4% per year and for the proportion of students represented by these survey

facilities, one can place an approximate present dollar value on the physical condition of Montana schools in 1994. Inherent in this exercise is the assumption that the proportion of buildings rated in the five categories has not changed in six years. While it is known that certain buildings that were rated unusable or poor in 1989, such as Reedpoint or Plentywood, have been upgraded, it can also be assumed that other facilities in those six years have slipped from a higher physical rating to a lower physical rating in approximately the same proportion as the schools in the state that have improved their ratings.

Using the aforementioned assumptions, the value of school facilities rated Poor or Should Not Be Used in the State of Montana in 1994 is in the magnitude of $145,000,000. The value of schools that would be rated Adequate in 1994 is $571,000,000. The value of schools rated Good to Excellent in the State of Montana in 1994 is $1,429,000,000. No doubt, a complete updated survey of school facilities would offer exact values and conditions for Montana school facilities. The assumptions may be manipulated to increase or decrease the resulting values of the various physical ratings. However, it cannot be ignored that the value of Montana schools that are probably in poor or inadequate physical condition is a substantial amount ($145,000,000).

The Cost to Maintain Existing K-12 Facilities

In 1990, Montana State University - Bozeman initiated a program to inspect and quantify the physical condition of all of its facilities. MSU-Bozeman quantifies on a year-to-year basis the expected deterioration of various facilities. That deterioration is expressed as a percent of replacement value for the year being considered. Office and classroom buildings deteriorate approximately 1 1/2% of their replacement value per year. More complicated buildings such as research buildings deteriorate at a rate of approximately 2 1/2% per year.

Montana's K-12 schools probably fall between a 1 1/2% and 2% deterioration rate using the MSU-Bozeman system. When totalled from previously stated figures, Montana's K-12 facilities have a replacement value of approximately $2,150,000,000. Assuming that in order to maintain the status quo of those buildings, the 1.75% of their replacement value must be spent on an annual basis, this would mean that Montana schools should be spending $37,600,000 per year just to maintain their facilities in their present

condition.

A review of the budget (FY91, FY92, FY93) of Montana school districts reveals that they collectively spend approximately $6,000,000 to $11,000,000 on maintenance. At best this is one-third the rate of expenditure required to just maintain the status quo using the MSU-Bozeman criteria. Put another way, Montana school facilities are deteriorating at approximately 70% of the rate that they would deteriorate if they were simply ignored.

The Cost to Replace or Remodel Inadequate K-12 Facilities

In addition to the $37,600,000 a year needed on Montana facilities just to maintain the status quo, an additional sum must be spent to modify our facilities in such a way that they can adequately address the current educational program needs of our students.

The respondents to the 1989 survey stated that the replacement value of those buildings that were rated Should Not Be Used because of their lack of an ability to meet program needs was $13,489,000. They also stated that the replacement value of those facilities that were poor in their ability to meet the educational program needs was $106,215,660. When these two sums are totaled and brought forward at 4% per year to 1994 dollars and then expanded again to the proper proportion for 100% of the ANB in 1989, the total value of K-12 school facilities in the State of Montana that are rated Poor or Inadequate in meeting the program needs of students is $268,000,000.

How much needs to be spent to alter or renovate Montana school facilities to meet the program needs of the students? Remodeling costs can vary from 20% of replacement value to well over 100% of replacement value. Assuming that remodeling costs are an average of 50% of replacement value, Montana school facilities need another $134,000,000 worth of remodeling just to make them adequate in meeting the educational program needs of the students. It appears that, since the mid-1980's, Montana schools have spent between $25 and $30 million per year in major renovation or new construction. Assuming that this amount just maintains the status quo of the proportion of buildings rated Poor to Excellent with respect to their meeting the educational needs, then the $134,000,000 needed for Montana schools to adequately address educational program needs must be in addition to the $25 to $30 million per year presently expended. Expressed another way, the rate of large capital investment in Montana schools needs to nearly doubled between now and the

turn of the Century if we expect to have 100% of those children in our schools in the year 2000 being taught at facilities that adequately meet the needs of the educational program.

Additional Facility Issues

The discussion above with respect to the 1989 facilities survey and the implications that might be drawn from it on a statewide basis are a fairly straightforward analysis of a large body of imperical data. The conclusions that can be drawn from that data seem astounding in themselves because of the magnitude of the problem. However, the survey did not address several facility issues that may not have been recognized by the school administrators who rated their facilities on the 1989 form. When the tough replacement or remodel decisions face local school boards, detailed facility audits can be done on their structures to assist boards in their decisions concerning their facilities. These audits typically include a review of the structural or seismic integrity of the facility, the adequacy of the mechanical (heating, cooling, water, sewer, etc.) infrastructure, the electrical infrastructure, the architectural adequacy of the structure, and the adequacy of the site (parking, playground, athletic facilities, etc.).

Some assumptions can be made about the seismic adequacy of Montana schools. Present-day audits of schools usually follow the Uniform Building Code, since that is the code used throughout Montana. All codes regardless of their derivation include minimum requirements for seismic design. In the United States mandatory seismic codes were first introduced after the 1933 Long Beach, California earthquake. This means that, generally speaking, all schools designed and built prior to 1933 had little, if any, seismic design that will meet modern day seismic codes. Approximately 1/4 of the school facilities represented in the 1989 survey were built prior to the introduction of seismic codes in Montana. Generally speaking, those structures built out of concrete and masonry by the federal CCC during the late 30's were the first school buildings in Montana built in accordance with the national seismic code. There are no doubt thousands of public and commercial buildings throughout Montana that were built prior to the time seismic design was added to the Uniform Building Code.

As adults we have the option of shopping on Main Street in a building that was designed in the 1920's or out on a commercial strip in a new mall that was designed in the 1980's, but our children do not have that choice. We send

them to the schools we provide. How responsible is it to send approximately 1/4th of our children to schools that were designed without a seismic code in mind?

Modern-day mechanical codes require, among other things, six air changes per hour in our classrooms (the latest, yet to be adopted, code requires 15 air changes per hour). This is a recent code and it is not likely that any mechanical system designed prior to 1985 can meet this present day requirement. The typical heating system installed during the first decades of this century consists of a unit ventilator under each window of a classroom, with heat supplied to the coils of that unit ventilator from a steam or hot water boiler. These systems typically do not meet even 1/6th of the modern day air-handling requirements. Clean, fresh, healthy air is essential to teaching and learning in our schools.

The technology age is upon us. Extensive electrical, data, telephone, cable, and other systems heretofore unknown are necessary if we are to teach our children adequately for the future. A vast number of electrical systems in Montana schools were designed in the past for the past. When considering both the physical and the educational adequacy of a facility, school districts cannot ignore the fact that the electrical infrastructure of many Montana schools is wholly inadequate.

Architecturally speaking there are several issues which are of concern in many of Montana's schools. As was previously stated, most schools built prior to the 1940's are more than one story high. A two-story building can often be more expensive to renovate than the same square footage on a single story. Issues of access are paramount with the American Disabilities Act (ADA). As we all have become aware in the last two years, ADA requires access to all of our facilities for a large segment of our population that was previously ignored. The disabilities listed are not strictly limited to those that might require the use of wheelchairs. For instance, the blind must also be accommodated. Two-story buildings would require either an elevator or an extensive ramp system if they were to be remodeled in accordance with ADA. The ADA also requires extensive signage for both sighted and blind persons, automatic doors, exterior ramps as well as interior ramps, handrails, modified bathrooms, etc. throughout all of our present facilities.

Other architectural considerations that must be considered relate to protecting our students from fire, complying with the federal asbestos laws

(AHERA), complying with the federal clean water act, mitigating the potential intrusion of radon, complying with federal hazardous waste rules, and complying with federal guidelines relating to safely designed playgrounds and playground equipment. All of these federal requirements have been introduced in the last decade. Over 90% of Montana schools were built prior to any of these rules being written.

The condition of Montana schools varies over a wide spectrum. The advancing age of many of our structures contributes to perhaps the most significant potential danger to our students: approximately 25% of our buildings were built prior to any seismic code being written. Occasional budget problems and perhaps lack of facilities skills has caused a deferred maintenance backlog. Most recently several federal mandates have caused a large portion of Montana's schools, which could not react in a timely manner, to be out of compliance.

Finally, plans for improvement of school facilities in Montana must include consideration of alternative educational delivery systems such as year round schools, extended school years, extended school days, increased technology use, and the like. Institution of any of these systems would likely increase facility costs for air conditioning and/or cable installation and equipment.

What strategies can be suggested to provide a safe, comfortable environment in which our staffs can teach and our students can learn? A complete deferred maintenance/capital improvement plan is suggested. For smaller schools, a simple list of items that need to be completed to bring a facility up to the standards is all that is necessary. For districts with more than 2-3 classrooms, a facility audit by a professional engineer or architect is highly recommended. The audit should review the facility's seismic and structural design, its mechanical and electrical infrastructure, and its architectural compliance with the Uniform Building Code and the ADA. At the same time these code audits are being completed, maintenance audits can also be completed. Once the information is returned to the district, the district can decide whether to proceed to remodel/renovate or to replace. In any case, a source of funding will have to be found to complete the work.

Generally school districts have three sources of funding--their general fund, a building reserve fund, or bonds. The decision of which source of revenue to use is strictly a local decision to be made by the Board and its constituents.

The most frequently used method of funding larger construction projects is bonding. Approximately $25,000,000 per year is bonded for school construction in the State of Montana. The 1989 survey showed that 77% of all dollars spent for remodeling, renovation or new construction were raised by bonding. Building reserves accounted for 7% while the district general fund accounted for 5%.

School district building reserve funds are probably the most underused resource available to school districts for construction or renovation. The advantages of using building reserve funds are numerous. Expenditure of building reserve funds requires only a simple majority of voters. There is no minimum voter turnout for building reserve. They are outside the limits instituted by initiative 105 (I-105). Building reserves are limited to expenditures for facilities. They may not be used to buy textbooks or pay for teachers' salaries. Voters understand the simplicity of this idea. There is no "cost" for building reserve money. Tax dollars are directly derived from the taxpayer and available to the district each year. The only drawback to building reserve funds is that they are not all available during the first year. A million dollar building reserve levy over 10 years produces $100,000 plus interest each year. The building or construction program must therefore be phased in over the lifetime of the building reserve levy.

The building reserve is therefore ideally suited to fund a district's five or ten year plan for the upgrading of its facilities. Once the code and maintenance audits are completed on a district, the list of deficiencies can be prioritized. The district can then decide to fund this list over any practical period of time and ask the voters to tax themselves with a building reserve levy to fund these improvements. This approach also allows facilities to be repaired and upgraded during the summer months and allows the facilities to continue to be used for educational purposes during the school months.

Suggested Strategies

1. The Montana Office of Public Instruction (OPI) should provide significantly more leadership for construction, renovation, maintenance, and support of the state's public school facilities. At a minimum, this office should be a clearinghouse for facility information and state resources.

2. Launch a state-supported effort (utilizing prominent state and local decision-makers) to increase stakeholder awareness of the condition of the

public school facilities in Montana. Importance of the ambient environment on teaching and learning must be communicated to parents and other community members with graphic, undeniable evidence.

3. School districts should insure that a reliable facility appraisal is conducted of all their facilities.

4. Provide local school districts with more significant information on alternative strategies to deferred maintenance plans and for increased energy efficiency. This should be done through hands-on workshops, seminars and staff development programs designed not only to demonstrate new and better preventive maintenance strategies, but also to foster supportive attitudes and generate greater understanding about the positive impact good, well maintained facilities have on the learning climate of the school.

5. State and local officials should work together to develop standards for insuring a healthy environment (such as indoor air quality) in every Montana public school. State mandates issued to local schools on environmental concerns should be accompanied by the necessary funds to carry them out. (The Montana Accreditation Standards should be completed.)

6. School Boards should annually dedicate funds, either a portion of their general fund or a Building Reserve Fund levied specifically for facility renovation and annual maintenance, in order to preserve the status quo of existing facilities.

7. Because of the great disparity in taxable value per student from district to district, adequately funded equalization from the state level should be available for capital improvements. Without such equalized assistance poor districts may never be able to provide adequate school facilities.

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TECHNOLOGY IN EDUCATION

by

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Executive Summary

This policy paper presents information for use by Montana policy-makers as they examine issues concerning technology in education. For purposes of this paper, technology is defined as instructional technology. "It is comprised of the materials and devices applied to processes of teaching and learning "(AECT, 1977, p. 164).

The paper reviews the national scene from various perspectives, current developments in Montana, and puts forth recommendations for future consideration. There is no comprehensive master list of projects. Therefore, this paper provides readers with an overview of various instructional technologies currently in use and, we hope, provokes discussion concerning future developments and directions. A conscious decision was made to discuss instructional technologies by type rather than by specific projects.

Technological developments are escalating as the 21st century looms on the horizon. A challenge facing Montana policy-makers is how best to provide learners of all ages with equitable educational opportunities while dealing with scarce resources and rapidly- changing delivery mechanisms. Another challenge is to determine which technologies can best be utilized given the vast geographical and diverse technological environments in Montana. It is important to remember that instructional technologies are tools. They are not an end result but rather a means to achievement and goals.

Questions which need answers as the state moves into the communications age are:

1. Planning for education and utilization of instructional technology is essential. It must be flexible and will need constant reevaluation. What is the best way for the state and its educational institutions to do this planning?
2. What is the best way to provide equitable access to instructional technology?
3. How can teachers and preservice teachers be trained and retrained to use instructional technology in an integrated manner?
4. How can the state provide leadership? A cohesive, integrated plan and implementation program is essential. So is commitment. There is no room for turf consciousness, special interests, or hidden agendas if affordable, creative solutions are to be created. Education needs to be

examined as a whole, and then assistance can be provided to local entities to implement their own systems.

5. What should the role of education be in light of information gained from various national reports?
6. What is the role of educational institutions as well as libraries in providing access to instructional technologies and services for lifelong learners?
7. Montana has unique geographic and demographic characteristics which must be kept in mind. Networks constructed must be comprehensive, available to a variety of users and entities, and integrated. They must also provide gateways on a national and global scale. Technologies must be interactive and connective as much as is possible. An integrated approach will ultimately be more affordable and easier to maintain. What is the best approach to this situation?
8. How can the entrepreneurial and independent spirit of Montanans be applied to solve educational problems?
9. How can the issues of emphasizing process and information and technology literacy be addressed?

Recommendations

1. Adequate support must be provided for the METNet bulletin board system with Internet access beyond electronic mail. Development of the compressed portion of the METNet should also be continued. Community colleges, tribal colleges, and university units should be connected via this network.
2. Networks currently in existence or planned must be able to interface with each other via the Internet or some system. Currently too many isolated networks exist.
3. A consistent, ongoing program to provide technology training for school administrators and teachers must be designed and implemented as soon as possible. If administrators and teachers are not trained to use technology appropriately, progress will not occur no matter how much technology is placed into schools. Perhaps a van could be equipped (similar to the bookmobile model) as a travelling "technomobile" to transport training on a mobile basis.
4. Efforts of public school districts to purchase hardware and software which will provide equitable computer access to all children and lifelong learners must be supported. Technology and information literacy is too important in the economy and workplace for access to be denied to

those not wealthy.

5. Strong, ongoing leadership is needed if technology is to be integrated into public schools. This leadership cannot be dependent on sporadic grant funding but will require a statewide commitment to an integrated, phased technology plan. The education environment is changing so any plan must be process oriented rather than content or hardware specific.
6. Fiber optic cable is present in Montana but often bypasses nearby schools. Help for the "last mile" of connectivity must be provided to schools.
7. Public schools and higher education institutions in Montana should consider becoming providers of distance education programming through use of compressed video and satellite accompanied with telecomputing technologies.

Introduction: Statement of Problem

Societal changes

Several problems face policy-makers attempting to deal with issues relative to a new century. There has been a rapid change from an industrial age to one which is now called an information age. Some experts even state that we have fast-forwarded through the information age into the communications age. These changes are occurring too rapidly for most of us and we long for a respite. However, societal and technological changes continue to escalate at a breathtaking pace. In education we are asked to prepare students to live and work in a world which, to some degree, we cannot predict. This situation is uncomfortable. Think about these ideas, some of which were presented in a recent, controversial book by Perelman. Pretend that you are your parents looking around today. Consider these questions,

1. What devices (tools) do you have that they did not?
2. How much and to what degree have these devices affected the working environment?
3. How much and to what degree have these devices affected the school environment? Does the school seem very different?
4. Are the "basic skills" you, or your parents, learned in school sufficient for the electronically advanced world of today? How has the definition of the "basic skills" which apply to work and society changed?

A child born in 1994 will enter first grade in 2000 and graduate from high school in 2012. In the United States today there are babies (perhaps your child or grandchild) who will be alive in 2100. Since the population is increasing and medical science is advancing, it is highly likely that many of our children and grandchildren will live through the next century.

Sixteen years ago microcomputers, video games, compact discs, laser discs, VCRs, and CD-ROM players did not exist. Microwaves and photocopiers were not commonplace. Cable television did not exist. Cassettes were considered to be the replacement for records. There were no digital watches, fax machines, or solar powered calculators. Vehicles had few, if any, electronic gadgets or computers. Telephones were primarily rotary, not touch-tone, and certainly not video phone. A sophisticated, handheld calculator with multiple functions was at least $200 for a battery model. Workers did not frequently change jobs or need to upgrade skills very often. Learning usually took place in a fairly

traditional classroom with a teacher or professor at the helm who was the " expert." Formal education usually ended upon graduation.

Now learning will be a life-long task and the major component of many current and future jobs. The entire contents of the Library of Congress can be downloaded in twenty- four hours to any entity which might want it and has the equipment. The entire contents of the Encyclopedia Britannica can be contained on one laser disc. Over the Internet, with ordinary telephone lines, individuals can access and share information almost instantly. They can work together electronically on a common project or manuscript. We use computer technology, directly or indirectly, every time we access an ATM bank machine, buy groceries or gas, or make a phone call.

A teacher prepared to teach in many schools of education today could comfortably teach in schools of yesteryear. However, in the hardware-rich schools being planned today a teacher will need to retrain often or knowledge and skills will become obsolete.

Young children do not know a world without many things which still seem new to us. They were born into a society which receives much of its information from television and through electronic means. For these children, learning can occur through all forms of social activity outside of the school such as entertainment (Learning or Discovery Channel), computers at home, or "intelligent" electronic instruments which can teach someone to play them. A higher level of basic skills is required to function today and this will be even more true in the future.

According to Perelman, of the sixty million or more people who have learned to use personal computers since 1980, most have learned from sources other than schools.

With all this change, it is no wonder than many people feel stressed, overloaded, and confused.

The Problems

Problems surrounding the term "technology" are abundant. For purposes of this paper, emphasis will be placed on those problems which occur in an educational context.

One problem concerning technology is lack of consensus and understanding about what the word means. Personal meaning of the word "technology" has been compared to the proverbial example of the elephant being touched by a variety of blindfolded people. A survey by the Center for Excellence in Education (CEE) found that teachers and administrators defined technology in ways typical of most of us. Computers were usually included along with computer-linked technologies like CD-rom, software, electronic mail, and data bases. Television, cable, and VCRs were also mentioned. Distance education technologies were included. The best response was this,

> In its broadest sense, it's anything a teacher uses, the blackboard, an overhead projector, a video machine, all of that in a broad sense is technology. Calculators, globes, maps but today, people tend to think more of electronics, which for the most part is computers, interactive technologies, satellites, and that sort of thing (1993, p. 2).

Since there is much disagreement about its meaning, there is distrust and misperception surrounding the term and people often find technology in any form to be threatening. This confusion does not help to advance the ever-present, beneficial, unavoidable phenomena which we collectively call "technology."

To many people, technology simply means hardware such as lasers and computers. To others, technology is a means of organization to produce services and products. To another group, technology is a process. It is the actions used for developing, producing, and using materials of all kinds (Wright & Lauda, p. 3).

The Project 2061 report (Johnson, 1989) dealt with skills needed by workers in the next century. This report presents the most reasonable definition of technology by suggesting that the real essence of it is the application of tools, skills, and knowledge to solve practical problems and extend human capabilities. This approach removes hardware as the primary focus and places the emphasis where it is most appropriate,

(a) what needs to be done and what the possible benefits are
(b) what is the best approach from the menu of knowledge, tools, and available skills.

Other reports have stated the importance of information literacy and

technology literacy as basic skills.

A second problem is that people often see technology as a threat and prefer not to deal with it. In the past, technological changes occurred much more slowly. People had time to acclimate and feel comfortable. Of course, acclimation time must be seen as relative. Much of the stress and change seen today surely surrounded the introduction of the printing press and the changes it forced onto society. Today, though, because of the omnipresence of computer technology, the amount of time available to adapt to change seems to be inadequate. This will continue to occur and the challenge is to take charge and manage change rather than let technology do that for us.

A third problem is the fact that there is too much information bombarding us. We feel glutted and unable to manage it. As Mark Twain said, "...the trouble with keeping up, is keeping up." Technology is viewed as a way to help manage information and provide access to it.

Another problem is affordability. Since hardware solutions encompassing computers are often used, the dilemma of purchasing hardware which will be upgradable for a time is an important consideration.

Equal access to hardware is also a problem. There is concern about creating a gap between the "haves" and "have nots."

Readers must remember that instructional technologies are tools and must be selected after other factors are considered. An analogy can be drawn with a builder who wants to complete a house. The house is the ultimate goal. A type of tool which can be used for many jobs is a hammer. The best tool for pounding nails is a hammer but it is not the best selection for all jobs. Trying to use only a hammer to construct a house will not work. The same is true of instructional technologies.

The sixth problem pertains to the additional responsibilities for educators to present skills in information literacy, critical thinking, and technological literacy as well as subject content. Students must leave school equipped with marketable skills as well as lifelong learning skills and attitudes. Since the life of information is becoming shorter, content becomes quickly outdated. Thus, students must know how to assume responsibility for updating themselves, find information resources in various formats, and evaluate information in order to be competitive in the marketplace.

The last problem is to consider what is feasible for Montana given its geographical features, population, and economic condition. This is a problem with no easy solution.

For purposes of this paper, the term "instructional technology" will be used to describe applications of devices and materials to learning and teaching.

National Perspective

History

Historically speaking, new instructional technologies are just the most recent evolution of tools developed to deal with the extension of knowledge and learning. The printing press is often compared to the computer in that it made knowledge more widely accessible and made reading and writing skills available to, as well as required of the general public. One might consider how the wealthy class and professional scribes felt about that development in their time--quite threatened, probably. Today, cable, video, and other electronic media provide learners with better access to information and lifelong learning opportunities.

A landmark report published in 1983 was A Nation at Risk. It said that schools were no longer doing the job of preparing students with appropriate education and skills to work in an information-based economy. Another finding was that the ability to use computers would quickly become essential for most jobs and schools needed to address the issue. The report may have provided an impedance for schools to make efforts to remedy the situation. There is much to be learned from stories of schools which have been successful in educational reform. Many reports and books have been written with similar messages. A recurring theme is the need to emphasize hardware applications to provide students with computer-and information-literacy skills as well as the need to teach critical thinking skills. Examples of the reports and books mentioned are,

Educational Renaissance
Learning a Living: A Blueprint for High Performance: A SCANS Report for America 2000
Project 2061: Benchmarks for Science Literacy
School's Out
Workforce 2000: Work and Workers for the 21st Century

Current Status and Progress

A report from the Center for Excellence in Education ("Toward," 1992) states that the public is justifiably skeptical about new instructional technologies. Previously, perhaps too much was promised with too few results. The difference today is that the new instructional technologies have become ingrained in life outside of schools and thus pressure to use them is coming from outside. Successful schools are using instructional technologies to accomplish goals which before were unattainable. They are using the technologies to facilitate and support greater access to learning, increase teacher/administrator efficiency and productivity, and to support effective learning. Education is in the midst of a revolution which can be viewed as both exciting and stressful. Successful change will require a coordinated effort, financial support from everyone, enlightened leadership, and the information to make informed decisions. It is important to remember, however, that a one-size-fits-all approach is not appropriate. Each school will vary according to its population, resources, teacher corp quality, and community status. Schools do not change easily. The report states that schools change one at a time, often in response to local forces and events such as new school boards, significant personnel turnover, new construction, or a new curriculum.

A prime time for change is when a school or district decides to invest funds in new instructional technologies. Since such occasions are rare, most schools do not waste the chance. The report states that school representatives should not think first about the cost, power, or maintenance record although these are certainly important considerations. Instead, the most important questions concern whether the instructional technologies will help the school and students to be successful in achieving goals (p. 3). The report then cautions that questions about which technology to purchase should be joined with questions about the kinds of schools people want. Following are questions the Center has found students, parents, school boards, administrators, and teachers to be asking about their schools,

1. Should school time be used more flexibly?
2. Should the curriculum be more integrated and less subject-driven?
3. Should students be encouraged to work in groups; should they be given greater opportunity to pursue individual interests after demonstrating mastery of core knowledge and basic skills?
4. Should teachers employ a wide range of teaching techniques; should they encourage problem solving in contrast to rote memorization?

5. Should administrators have the means for assessing teacher performance by appraising the results of instruction? and
6. Should parents be given access to information about their children's progress whenever they want it?

Answers to these questions are important when deciding what instructional technology, if any, is needed, and how it will be used (p. 3).

While many U.S. schools continue to apply instructional technology to existing practices, there are also those who deliver instruction designed to use the tools to change what is learned and how it is assessed, and to enhance the teacher's role in learning.

Innovative schools mix instructional technology with new approaches to learning and content. They also try to meet the needs of a diverse school population through use of instructional technology. There appear to be five essential elements in successful schools: access, connectivity, tools, resources, and integration (Rockman, 1993, p. A31). While somewhat controversial and initially costly, these elements merit discussion.

Several national projects have demonstrated the importance of technology to education. The Star Schools program, through the United States Department of Education, has funded several demonstration projects through grants. The purpose of Star Schools projects has been to demonstrate use of satellite communications for deliver of courses. Consequently, many distance education programs have been designed and delivered in the last few years. The largest Star Schools project has been the Pacific Northwest Partnership. Montana has been a participant in this program but has not taken full advantage of the services and technology. They have been perceived as too costly by some school district administrators. Another national project has been Big Sky Telegraph which has received grants from the US West and Annenberg Foundations. A purpose of this project has been to demonstrate application of telecomputing and telecourses on a global basis.

If students, teachers, and administrators are provided with computers, then power, equity, and access have been provided to the majority of a community. If computers are linked through networks, access to information is enhanced and options for using it are made possible. Since information is viewed as power, networks can redistribute power and knowledge. Using the tools for open-ended exploration instead of just drill and practice, for example, can help

students to explore topics and research from various data bases and content areas. Resources for students and teachers can extend beyond the classroom walls and bring the world into the classroom as well as move students and teachers outside the classroom. The hardest part is integration--creating an environment where instructional technology is given a new role to support teaching and learning, expand the curriculum, and encourage new cooperation among education constituencies and the community. Thus, lifelong learners of all ages--preschool to 100+--can participate in an information-rich society.

In some districts such as Sioux Falls, SD, teachers are being provided with notebook computers as part of a teachers' tool kit. Then, in successful schools, they are also provided with ongoing training and encouragement to use them. Students are also given access to computers as part of their "textbook" assignment. While they may not have the computers all of the time, they will have enough of them in class to use them in an integrative fashion for project-based learning and networking. Families can be encouraged to be participants when schools use cable television, telephone voice mail, and computer networking between school and home. For example, parents could dial in to a school database to see what homework their children had for the evening and leave electronic mail messages for the teacher. They could also access library resources for themselves and their children. In successful schools, parents are heavily involved in the educational process and instructional technology can help to facilitate this involvement and assist parents in the lifelong learning process, too.

The Goals 2000: Educate America Act first initiated under the Bush administration, passed into law during the spring of 1994. It has provided a boost to efforts to develop educational standards for all Americans and build upon efforts that started with the 1983 report, A Nation at Risk. Funds have been allocated to assist states with technology planning activities in order to support systemic reform and achievement of high standards (Donovan, 1994, p. 40). The Improving America's Schools Act also includes major new efforts to expand use of technology. Trends for the Future and a Few Predictions:

School leaders must learn to plan and manage change successfully by setting goals even when they do not clearly see the means to reach them. Technology evolution will continue to occur and the process may involve constant renegotiation and restructuring. Create the vision and then select the means to achieve it. Instructional technology tools are not the goal but rather a means to achieving goals and creating changes to enhance and advance an educational

vision.

Equity in education will continue to be a problem as the division between the haves and have-nots continues to increase. Libraries and educational institutions can assist but must do so assertively and creatively. Placing the tools in libraries and schools where students without computers at home can explore and use them creatively is very important.

On-going teacher training, both preservice and inservice, is essential for successful integration of instructional technology in education. Teachers must learn to use hardware and software and, more importantly, how to integrate it into the curriculum so that it is part of the educational process. The issue is not so much access to technology as it is the use of these tools. For example, placing more computers into schools will not solve problems unless staff and students are provided training on a consistent basis to incorporate higher-order thinking skills and activities into the educational process.

The benefits of integrating instructional technology into schools are abundant and will continue to develop. A sampling of benefits is as follows,

1. Students enhance communications skills through use of computers and electronic networking. It is easier to practice composition because a word-processing program removes the drudgery from revision. Students practice a foreign language, for example, by writing to a student in another country in the appropriate language.
2. A class can work on a government or social studies problem from various international perspectives since telecommunications could link students from various countries and allow them to engage in discussions.
3. Cooperative learning activities can easily be designed through use of technology tools. Students learn group process and consensus skills and apply discussion and decision-making skills as well.
4. Interactive technologies provide opportunities for students to learn in a variety of sensory ways. For example, students who learn best visually could have the chance to do so while another student could choose to learn auditorially. These technologies give all students the chance to select what works best for them in a given context.
5. Multimedia, also called mixed media, can provide students with stimulating opportunities to experience an event in ways other than reading. An example is that students in a history class can hear John F. Kennedy or Martin Luther King's speeches, see them in action, and gain

an understanding which a traditional textbook simply cannot provide.

6. Virtual schools and textbooks (electronic schools and textbooks) never close or become dated and barriers such as gender, differing ability levels, age, and race disappear. Learners can access library and instructional materials in the middle of the night through electronic means if they wish to do so. Learners are forced to use reading and writing skills in order to communicate electronically.
7. Companies will continue to modify traditional classrooms and instead use "just in time" learning which is dependent on context and need to know. It will be increasingly available any time and anywhere that the learner needs it. Evidence of this trend is easily seen in audiocassettes, videocassettes, and computerized training packages.
8. Common, international, standards which will make it easier to network globally will be developed.
9. Consumer options via cable, satellite, and all-fiber transport will continue to develop. Video services will offer a wide variety of information, entertainment, and "edutainment" to consumers on demand. Mayo said that video will be to the '90's what fax was to the '80's (1993, p. 5). Videophones will be in heavy use by 2010.
10. Interactive telecommunications, and multimedia such as virtual reality, will continue rapid development and become more affordable. Virtual reality, the ability to indirectly and remotely experience an event or place in all dimensions, is already being tested in projects to train medical personnel and pilots. Another application will be the ability to select a car , clothing, house, or almost anything now requiring an in-person examination, through computer technology. Mayo provided several examples in a speech delivered in 1993. He presented the concept of "telepresence" to work from home and visit friends and relatives (p. 5).
11. Costs of computers and computer assisted devices will continue to drop and many products will be developed for sale to the home market. Industry estimates of computer software sales in 1994 are already ten to one; that is, ten sales to the home market per one sale to schools. Such a trend could present worrisome quality concerns for educational products. Fortunately, some projects are underway to develop, design, and evaluate "virtual textbooks." Computers and accompanying devices are already becoming smaller and more user friendly. Perfection of voice recognition will make devices even easier to use. Instead of typing, one will talk to a computer which can be trained to recognize one's voice, work style, and preferences. Wireless technologies will also make

hardware easier to use.

12. Mayo presented another interesting idea concerning software design. He stated that computer programmers, as we know them in 1994 will have other jobs, since the generation of software will be primarily automated, much like today's computer-aided design of integrated circuits (p. 6).
13. The Internet will continue to grow and access will be more affordable.

Some readers may not be impressed by futurists such as Toffler, Cetron, and Naisbett. Some of their predictions seem like science fiction. While not all of these predictions come true, many are doing so. In 1978, the author heard a scientist from Xerox predict that in the next twenty years, computers would be the size of a three-ring binder and that they would be issued to students much like textbooks had been. He predicted that costs of computers would drop and that they might even be given away in order to sell software to schools and homes. He showed a film which demonstrated a computer language called "small talk" and how children could use a peripheral device to work with the computer. The man was Alan Kay, currently a chief scientist at Apple Computer, Inc. That device is now known as a mouse, and the Macintosh computer represents much of the product demonstration shown in the film. So far, Kay's predictions have been on target. So have many of the predictions made by Toffler, Naisbett, and Cetron.

Montana Perspective

History

Education in Montana has had a varied and creative history of using newer instructional technologies. Often activities have been driven by grant funding. However, the tenacious, independent, entrepreneurial spirit so prevalent throughout the state has also played a significant part. In the last twenty years the Office of Public Instruction, higher education, school districts, independent schools, and business partnerships have all played various roles. As a result it is impossible to write a complete history since no comprehensive record or inventory exists. There have been few statewide, comprehensive efforts until relatively recently. Some highlights will be briefly presented.

The most recent comprehensive effort was creation of the METNET (Montana Educational Telecommunications Network) in 1991. METNET was the result of a statewide telecommunications study which was funded by the

Montana Legislature in 1991 and is often called the Lambda Report. It is a cooperative venture between the Department of Administration, the Office of the Commissioner of Higher Education, and the Office of Public Instruction. The network was established by state funds and matching corporate funding. It was created to support economic development, government services, and education in Montana. The study proposed a three-way telecommunications network to be phased in over a period of time: satellite (dishes), electronic bulletin board (bbs), and a compressed video network. Compressed video and the bbs have been the most utilized and developed. During the 1993 legislature, funding for expansion of the network called for by the original plan was not provided. Thus, development has been delayed. As of fall, 1994, the bbs has been overhauled with new software and hardware. It is maintained by the Office of Public Instruction. Through 800-number telephone lines, teachers, students, administrators, and higher education faculty have access to a statewide electronic bulletin board. Plans exist to provide some form of Internet access. The compressed video network is overseen by the Department of Administration and now has eight sites, one of which is owned by Montana Power. It is currently being used for state government training, higher-education courses, and videoconferencing or meetings.

Current Status and Progress

The current status of newer instructional technology utilization and integration in Montana schools encompasses a wide variety of delivery mechanisms, equipment, and applications. Distribution is also quite uneven. Many computers now in schools are obsolete and cannot run the newer software. This is not surprising, since the life of computer technology is about five years and many computers have been in schools for longer than that. Utilization of equipment ranges from simple tasks, such as drill and practice, to multimedia, computer conferencing, distance education, and networking via the Internet. A computer may be used for word processing or with a modem and phone to connect to the Internet. Such a connection will provide access to a variety of resources to supplement the curriculum.

Much instructional technology activity has been grant driven which has positive and negative effects. Negative effects include a lack of funding for maintenance and upgrade after grant conclusion, lack of support and resources after a project concludes, and sometimes lack of community involvement in the process. Use of the tools may not have been fully integrated into the total educational process and may not be well-maintained after the grant ends.

Sometimes grants may have focused attention on "the stuff" and not what would be done with it. Such an emphasis is easy to understand when funds are so tight. Schools should be commended for these efforts since they do require intensive time investments.

While the following list appears to be quite extensive, not all schools, especially small ones, have access to many of the possibilities. Newer instructional technologies are not equitably available across the state, nor is Internet access universally available to Montana schools. Current plans for the METNET bulletin board include provision of limited Internet access but none is yet possible beyond electronic mail.

Instructional technologies used by schools include,

1. satellite television with two way audio
2. satellite television only
3. compressed video, two way audio, video, and data (also called interactive television; Montana has eight sites as of fall, 1994. In addition, some school districts in eastern Montana are linked by fiber optics cable and make use of compressed video to share teaching resources).
4. broadcast and cable television (PBS and Cable in the Classroom channels such as Discovery and the Learning Channel)
5. computers and computer assisted technologies such as interactive videodisc, CD-rom, multimedia, hypermedia, and robotics
6. telecommunications (for example, electronic bulletin board with or without Internet access)
7. teleconferencing (audioconferencing, videoconferencing)
8. local area networks
9. digital images and video
10. fiber-optic cable

Several reports have been published in Montana recently. While not specifically addressed to public education, the reports provide insights into state perspectives and contain useful planning information. "Electronic Information Access," written by the State Agency Librarians Round-Table, provides valuable information concerning public access to electronic information services and government participation in them. The executive summary states that the arguments and analyses contained in the report are generally applicable to any electronic information service or network (1994, p.

1). The Round-Table states that,

> Montana's leadership must recognize that we live in an age where technology is dramatically altering the way the world communicates. ...We can ill afford to allow Montanans to also become separated technologically and informationally. Public access and government participation on the information super-highway will ensure that Montana remains interactive and competitive in the information age (1994, p. 3).

The Montana Telecommunications Advisory Council (MTAC) was established by Governor Marc Racicot and Senator Conrad Burns to develop a plan for the State which would encourage and foster creation of a modern, affordable infrastructure (MTAC, 1993, p. i.). A recent report from the Montana Telecommunications Advisory Council (1993) presented an overview of current telecommunications technologies and how they are currently used in Montana.

Another report was published by the State of Montana Information Technology Advisory Council (ITAC) in July, 1994. The executive summary states that the role of ITAC is to "advise the Department of Administration on long-term strategic planning for use of information processing technology in state government." While not specifically targeted to education, the strategic plan certainly has implications for education as it sets forth infrastructure, access, privacy, funding, and training recommendations.

Goals 2000 legislation has provided funding for state educational planning. As of this writing, the Office of Public Instruction has applied for the planning funds and is in the process of establishing an advisory panel and subcommittees.

Trends for the Future and a Few Predictions

1. Costs for electronic technologies will continue to drop-making computers and computer- assisted technologies, specifically, more affordable. The recent announcement from Apple Computer, Inc. and IBM concerning a common way in which to build personal computers will make hardware decisions easier in the future. Consumers will be able to think more easily in terms of what they want to do and then select the equipment and software to do the job. This technology will make it easier for schools and homes to have computer technology

available. More schools and units of higher education will require students to have computers as basic tools for learning.

2. The Internet will continue growing and access will be more affordable through an integrated, elegantly designed state network. Fee-based services such as America Online, Compuserve, and local cooperatives will make access easier and more affordable f or individuals as well.
3. New satellite technologies, such as direct broadcast satellite technology (DBS), will provide affordable access to at least one-hundred fifty digital channels which can be received via a satellite dish eighteen inches in diameter. As of 1994, three DBS systems are operational. Two of these systems use the eighteen inch dish which currently sells for $700. The price is expected to drop to $ 400 or less in 1995. Digital content available includes music and video. Currently not much purely educational content is available but this will develop and the technology provides another way to receive information. A competitor to the two companies now providing service uses a three foot diameter dish. Disadvantages to DBS are (1) since the dish does not pick up local programming, one needs an antenna to access a local station and (2) it is one-way delivery and thus not interactive.
4. Cable will continue to develop services, especially interactive ones. Local cable companies and franchises will continue to offer a mix of local stations and other options.
5. If regulations permit, telephone companies may begin offering services much as are now seen on cable. Cable companies will offer services such as are now offered from telephone companies. The consumer may be the winner if competition offers better value and service selection.
6. Fiber will continue to be available throughout the country and may be more common in Montana.
7. Distance education will continue to provide learning opportunities for students of all ages. Just-in-time learning will be commonplace. Thus, the role of education and educational institutions will need to be rethought. Computer networking will make it possible for schools to be linked and instructional resources maximized. Equity issues will have been addressed.
8. Multimedia products will continue to be developed and refined. This can be a real boost to students with different learning styles and abilities. Costs will continue to drop.
9. By using Goals 2000 funds, education will be redefined and long-term plans designed, implemented, evaluated, and maintained. A way will be found to provide access to more resources using instructional technology

on a cost-effective basis.

10. Curricular shifts from an emphasis on tools to an emphases on processes and use of information will be made. Tools and content change rapidly but mastery of processes, information, and technology skills make it possible for students to continue learning and retrain as society and other needs require.
11. An emphasis on lifelong learning and community involvement will schools and libraries rethink roles and provide a wider range of services to maximize use of facilities and resources.
12. Digital technologies will continue to develop in ways not currently imaginable for most people. Voice recognition will be a large factor in this area.
13. Public school enrollments will increase. Replacements in the teacher and higher education corp will be needed as large numbers of faculty retire in the early years of the 21st century.
14. New educational facilities must be constructed to take advantage of new instructional technologies at the building phase. This includes general inclusion of telephone lines, electrical wiring, cable tracks, and other suitable fittings for new technologies. Costs to retrofit are and will be very high. Planning must include a hard look at what will be available down the road, and at how teachers and students will want and need to use the resources.
15. Unless equity issues are addressed aggressively, there will be significant, division between the information haves and have-nots. Since information is a highly valuable commodity and will become still more valuable, students must have access in schools or other locations to an educational environment containing the methodology, tools, and resources which will help them compete in the work environment.

Conclusions and Questions

There are many questions which come to mind. Unfortunately, there are no easy answers and questions will continue to occur as instructional technology evolves. It is important to remember the house analogy. The goal is to build the house; a hammer is a tool which enables the builder to complete the end result. The trick is to select the best hammer or tool to fit the task. Thus, instructional technology is a tool and will constantly change. Emphasis must remain on what the plan for education is and how best to meet the goals.

1. Planning for education and utilization of instructional technology is

essential. It must be flexible and will need constant reevaluation. What is the best way for the state and its educational institutions to do this planning?

2. What is the best way to provide equitable access to instructional technology?
3. How can teachers and preservice teachers be trained and retrained to use instructional technology in an integrated manner?
4. How can the state provide leadership? A cohesive, integrated plan and implementation program is essential. So is commitment. There is no room for turf consciousness, special interests, or hidden agendas if affordable, creative solutions a re to be created. Education needs to be examined as a whole, and then assistance can be provided to local entities to implement their own systems.
5. What should the role of education be in light of information gained from various national reports?
6. What is the role of educational institutions as well as libraries in providing access to instructional technologies and services for life- long learners?
7. Montana has unique geographic and demographic characteristics which must be kept in mind. Networks constructed must be comprehensive, available to a variety of users and entities, and integrated. They must also provide gateways on a national and glob al scale. Technologies must be interactive and connective as much as possible. An integrated approach will ultimately be more affordable and easier to maintain. What is the best approach to this situation?
8. How can the entrepreneurial and independent spirit of Montanans be applied to solve educational problems?
9. How can the issues of emphasizing process and information and technology literacy be addressed?

Recommendations

It is this author's conviction that the following initial steps should be taken

1. Adequate support must be provided for the METNet bulletin board system with Internet access beyond electronic mail. Development of the compressed portion of the METNet should also be continued. Community colleges, tribal colleges, and university units should be connected via this network.
2. Networks currently in existence or planned must be able to interface

with each other via the Internet or some system. Currently too many isolated networks exist.

3. A consistent, ongoing program to provide technology training for school administrators and teachers must be designed and implemented as soon as possible. If administrators and teachers are not trained to use technology appropriately, progress will not occur no matter how much technology is placed into schools. Perhaps a van could be equipped (similar to the bookmobile model) as a travelling "technomobile" to transport training on a mobile basis.
4. Efforts of public school districts to purchase hardware and software which will provide equitable computer access to all children and lifelong learners must be supported. Technology and information literacy is too important in the economy and workplace for access to be denied to those not wealthy.
5. Strong, ongoing leadership is needed if technology is to be integrated into public schools. This leadership cannot be dependent on sporadic grant funding but will require a statewide commitment to an integrated, phased technology plan with several components. The education environment is changing so any plan must be process oriented rather than content or hardware specific.
6. Fiber optic cable is present in Montana but often bypasses nearby schools. Help for the "last mile" of connectivity must be provided to schools.
7. Public schools and higher education institutions in Montana should consider becoming a provider of distance education programming through use of compressed video and satellite accompanied with telecomputing technologies.

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SCHOOL-TO-WORK:

A NEW SYSTEM OF EDUCATION AND TRAINING

by

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Executive Summary

The economy of the U.S. and Montana is rapidly changing to a knowledge-based economy whose jobs require both academic and technical skills. By the year 2000, at least 65 percent of all U.S. jobs will require some postsecondary education, but less than a four year baccalaureate degree. Yet, 75 percent of all students at the secondary level are preparing for a four year education, and only 25 percent of these complete such programs (Brustein and Mahler, 1994). Because of the need for both academic knowledge and technical skills, academic and occupational learning must be integrated to assist youth in achieving economic success.

Preparation of the nation's workforce has been a federal education goal since the early 1900s. Different federally funded programs, including cooperative education, tech-prep and youth apprenticeship, have been developed to provide students with technical skills. However, academic and vocational programs have functioned as independent programs with separate career paths. In addition, vocational education has long been viewed as a "dumping ground" for students "not smart enough to go to college", or who were identified as discipline problems. Educators and employers are changing their focus on separate programs to improving education through systemic change which will enable all students to learn at higher levels.

On May 4, 1994, President Clinton signed the School-to-Work Opportunities Act (STWOA) to create a comprehensive, national education and training system to prepare all students for high-skills, high-wage jobs or further education. The STWOA requires states to develop systems with local, community flexibility. Key stakeholders (employers, educators, parents, students, organized labor, community organizations, and government) must build partnerships to prepare all youth for education and work. The federal government is providing seed capital to states to develop a statewide system, built on existing programs such as tech-prep, cooperative education, and youth apprenticeship, for all students. All statewide STWO systems must consist of three basic components: work-based learning, school-based learning, and connecting activities.

A number of changes in the economy and in workforce needs have necessitated the development of a comprehensive school-to-work system. The STWO Act was passed to ease the transition from school to work, and to improve long-term employment for all students. In order to remain

competitive, it is essential that the U.S. train a workforce for the future. Students who take vocational or academic classes, as designed in our current system, will not be prepared for the workforce that they are entering. The STWOA creates great potential for change in our education and training systems. The development of viable partnerships between employers, education, labor, parents, and students will be a major factor in the success of this system.

Throughout the twentieth century, Montana's secondary schools have trained students for work through school-based enterprise, cooperative education, and most recently tech-prep. Many schools have formed partnerships with businesses to work together on curriculum development, acquisition of instructional materials or equipment, modernizing school facilities, and coordinating cooperative student work experiences.

In response to concerns expressed by employers and educators, Montana applied for a School-to-Work development grant. This nine-month $200,000 development grant to build a statewide STWO system became effective in April of 1994. The development of Montana's school-to-work system is led by the Governor, the Superintendent of Public Instruction, the Commissioner of Higher Education, the Commissioner of the Department of Labor and Industry, and the Director of the Department of Commerce. The Montana Chamber of Commerce and the Montana AFL-CIO are working with the above agencies in the development process. In addition, an advisory board consisting of representatives of all stakeholders (employers, educators, organized labor, parents, students, community-based organizations, apprenticeship programs, rehabilitation agencies, tribal councils, economic development organizations, elected officials and government agencies) is involved in the development process.

Montana began the school-to-work development process at the local level. Twenty-two community meetings were held to raise awareness about STW and collect information on local workforce development practices. In addition, surveys of secondary and postsecondary school administrators, and employers were conducted to gather information about current statewide practices. A statewide school-to-work conference was held on December 2 and 3, 1994. Representatives from all key stakeholding groups were in attendance.

The workforce preparation needs of Montana closely parallel those of the U.S. High technology service industries are increasing, and entrepreneurial

occupations are rapidly expanding. A STWO system in Montana would ensure that all youth are being educated and trained at the highest level possible. In order to achieve such a system, Montana has applied for an extension of federal planning funds. These funds will be used to develop local partnerships and build a system from the bottom-up with structural guidance from the top-down. The creation of a highly skilled workforce will bring more business and industry into the state and help boost local economies. The creation of a STWO system that includes school-based enterprise and entrepreneurial training and encourages new business development will also provide opportunities for Montana's youth to remain in the state. Graduates will be economically independent and the number of Montanans dependent on the state's welfare system will decrease dramatically.

Conclusion

Montana policymakers must consider the changing economy and workforce as they develop a statewide system of education and training. The STWO system provides excellent opportunities for the state of Montana. However, the following questions need to be addressed throughout the development process.

1. Does a system for all students mean access or participation, and how do we guarantee either one?
2. What level of commitment will employers make to STW, in developing a statewide system and participating in the work-based learning- and connecting-activities components?
3. Can comprehensive connecting activities that will tie together the work-based and school-based learning components be developed?
4. What effect will child labor laws, liability, and worker's compensation have on the development of work-based learning? What can be done to protect students, employers, and schools while students are on the worksite?
5. What type of performance measurement will be used to assess the effectiveness of the system and the skills of the students?
6. Is Montana willing to invest the resources to develop creative and innovative approaches to provide work-based learning experiences for students in rural areas where there are few, if any, employers?
7. Does Montana need or want new business development?
8. Do students need to understand the connection between what they are learning in school and the effect it will have on their job(s) and

throughout their lives?

9. Is it the responsibility of education or employers to train workers? Or do we need to develop new partnerships (in which blame is a thing of the past) that work together to provide the best education and training opportunities possible for all Montana youth?
10. Is the state willing to invest general fund money into a new education and training system for all students? The federal seed money is available on a temporary basis, for a five-year period. Once the STWO system is developed with federal funds, it is the responsibility of local and state funding sources to educate the state's youth.

Montana policymakers cannot avoid these and other questions. Our state and national economies have changed and continue to change. Our current education and training systems were designed for a local, industrial economy. Many of our youth are not prepared for today's workforce or for further education. They drop out of school and out of society, often ending up on some type of welfare. Many students bounce from job to job, lacking the skills to be productive workers in any field. The School-to-Work Opportunities Act provides Montana with a window of opportunity to develop a system for ALL Montana youth that will provide them with the skills and knowledge to be productive, independent workers in the economy of the future.

Introduction

The economy of our state and nation is changing rapidly. This new economy is knowledge-based. Now, and in the future, the majority of jobs will require both academic and technical skills. All individuals in Montana and the United States must be prepared with the knowledge and skills required to be competitive in the global economy. The high-performance work organizations typical of the knowledge-based economy need workers who think, and who can demonstrate work experience. In 1950, 60 percent of jobs in the U.S. did not require any specific skills. However, according to the Bureau of Labor Statistics, by the year 2000 only 15 percent of all U.S. jobs will be unskilled, while 20 percent will require a professional degree (B.A. or higher). More than 65 percent of all U.S. jobs, by the year 2000, will require specialized skills (more than a high school diploma, but less than a four year baccalaureate degree) (Brustein and Mahler, 1994).

Yet, in the United States today, 75 percent of all students at the secondary level are preparing for a four-year education. However, only 25 percent of these students complete their programs and earn a baccalaureate degree, according to a number of student tracking surveys (Brustein and Mahler, 1994). Those who drop out of their college programs encounter great difficulty in finding jobs. Montana and the United States need to change if we are to protect our economic health and our competitive positions in the global economy. We cannot continue to separate academic and occupational learning into two separate tracks that emphasize the need for a baccalaureate degree to achieve economic success. Students have been forced to choose between the academic and vocational track. But, now and in the future, the majority of jobs require and will require both academic and technical skills. Academic and occupational learning must be integrated to ensure that all individuals receive the best education and preparation possible, and become economically self-sufficient in the new economy.

Most students today lack adequate career information. It is difficult for many students lacking any sense of future direction to choose courses. Providing students with career information and a career focus often gives them a reason to go to school. The connection between academic and occupational learning can be a strong motivating factor in students' success in school, and later in the workforce. Students need to understand the relationship between their classes and success in the workplace. In addition, many students learn best by applying abstract concepts to "real world" tasks. By providing

integrated academic and occupational learning, students' opportunities for success can be significantly increased.

Most occupations are affected by the continuing rapid changes in technology. Tomorrow's workers must adapt quickly to change, perform more abstract work processes, solve problems, work in teams, and understand systemwide needs. Our current education system was designed for an industrial economy that no longer exists. We must shape an education system that provides opportunities for all students to master the skills demanded by changing technology.

National Perspective

History

Preparation of the nation's workforce has been a federal education goal for over 70 years. The Smith-Hughes Act of 1917, the Vocational Education Act of 1963, and the Carl Perkins Act of 1984 have demonstrated the federal government's continuing interest in workforce preparation. Until 1970, workforce preparation in secondary schools focused on training for entry-level positions in agriculture, business, trade, and industry (Hoachlander, 1994). Amendments in 1968 and 1976 to the Vocational Education Act supported the development of cooperative education at the high school and postsecondary levels. Cooperative education is,

> ...a method of instruction of vocational education for individuals who, through written cooperative arrangements between school and employers, receive instruction, including required academic courses and related vocational instruction by alternation of study in school with a job in any occupational field. (Stern, Finkelstein, Stone, Latting, and Dornsife, 1994, p. 13)

The Carl Perkins Act of 1984, and its reauthorization in 1990, funded emerging Tech-Prep education programs. A Tech-Prep education program is,

> ...a combined secondary and postsecondary program which leads to an associate degree or two-year certificate; provides technical preparation in at least one field ... (including applied academics) through a sequential course of study that leads to placement in employment (Carl D. Perkins Act, 1990).

In contrast to this extensive federal involvement, Americans have been unclear about the role education should play in training workers (Hoachlander, 1994). Academic education focused on learning for learning's sake, while vocational education became a dumping ground and was stereotyped as the place for students who were "not smart enough for college" or who were discipline problems. Neither academic nor vocational education was seen as a particularly effective way to prepare students by the National Commission on Excellence in Education in their 1983 report titled A Nation at Risk.

The realization that our students were not well-prepared for the workforce was accentuated when the National Center for Education and the Economy issued its 1990 report America's Choice: High Skills or Low Wages. America's Choice argued that the United States must develop better skills in its high school students or it will continue to lose ground to its international competitors (Choy, 1994). At the same time, pro-business "think tanks" like the Committee for Economic Development (CED) demanded improvement in the quality of education that young people receive to prepare them for the workforce. A 1991 CED-sponsored Harris Survey of the nation's employers found that only 12 percent of employers believed that students could write well, and only 19 percent believed that students had disciplined work habits (cited in Center for Corporate and Education Initiatives, 1994).

In response to these demands the Bush administration, and later the U.S. Department of Labor under the Clinton administration, began to explore European-based models of youth apprenticeship as a means to improve the transition of American students from school to the workplace. Youth apprenticeship programs,

> ...use the workplace as a learning environment to provide students with competencies in technical skills and related math, science, communication, and problem-solving skills. Students "learn by doing" in paid employment and training with an expert adult mentor and supervisor who works closely with them on job-related and general employment-related skills. Qualified students receive a recognized occupational credential upon completion of the program. (Pauly, Kopp, and Haimson, 1994, p. 10)

This focus on youth apprenticeship was later broadened to include the combination of school-based and work-based learning found in cooperative education, and the connection of secondary and postsecondary education found in Tech-Prep. In addition, it was clear to policymakers in Congress and

the Clinton administration that American business was concerned with preparation of all students, not only the non-college bound. Employers called for improving the education that all young people receive to prepare them for work. Answering this call required moving beyond traditional academic and vocational education to systemic change.

Current Status

On May 4, 1994, President Clinton signed the School-To-Work Opportunities Act (STWOA) of 1994. The purpose of the STWOA is to create a comprehensive, national, education and training system to prepare all students for high-wage, high-skill jobs or further education -- college and careers. The STWOA requires states to develop a system that has local, community flexibility. No longer can the blame for students who are unprepared for work and society be put solely on educators, employers, or parents. Key stakeholders (educators, parents, students, employers, organized labor, government and community-based organizations) must work together at the state and local levels. Federal seed capital will facilitate developing statewide systems and local partnerships. The state systems will use programs like Tech-Prep, cooperative education, or youth apprenticeship as the foundation from which school-to-work transition systems will be built with creative, local partnerships.

Every school-to-work system must include three essential elements,

- The system will incorporate work-based learning. Work-based learning includes work experience, workplace mentoring, broad instruction in industry-specific skills, and a sequential program of job training experiences with skills to be mastered at higher levels.
- The system will include school-based learning. The program of study must meet challenging academic standards in core subjects and should integrate academic and occupational learning. The program of study must also include career awareness, and career exploration and counseling beginning no later than the seventh grade.
- The system will provide connecting activities. Connecting activities match students with employers, and link high schools with postsecondary schools. (School-to-Work Opportunities Act, 1994)

All school-to-work systems have four additional general requirements. School-to-work systems will,

- Integrate school-based and work-based learning, integrate academic and occupational learning, and establish effective linkages between secondary and postsecondary education.
- Provide participating students with the opportunity to complete career majors. A career major is a coherent sequence of courses that prepares a student for a first job, and prepares the student for employment in a broad occupational cluster or industry sector. Career majors typically include two years of secondary education and at least one or two years of postsecondary education.
- Provide participating students with experience in and an understanding of all aspects of the industry the students are preparing to enter.
- Provide all students with equal access to the full range of program components and related activities, such as recruitment, enrollment, and placement activities. (School-to-Work Opportunities Act, 1994)

Federal seed capital takes three basic forms. First, each state received a STWOA development grant to begin the process of building a school-to-work opportunities system. Second, after developing a statewide structure and an implementation plan, states may apply for implementation grants on a competitive basis. Eventually all states will be awarded implementation grants. Each state will receive its implementation grant funds over a five-year period. In the first year states must distribute 70 percent of the implementation grant funds to local partnerships. In the second year 80 percent of grant funds must be distributed to local partnerships. In years three through five 90 percent of grant funds must go directly to local partnerships. The third type of seed capital provides additional implementation funds to three groups. Local partnerships which are ready to implement a school-to-work system, before their state's system has been established, may apply directly to the federal government for implementation funds. These direct funds are only available until the state receives its implementation grant. High-poverty areas with established school-to-work systems may also apply for directly-awarded implementation funds. Finally, areas served by Bureau of Indian Affairs schools may apply directly for implementation funds.

As of November, 1994, eight states had been awarded implementation grants and fifteen local partnerships had received direct implementation grants. The states were Kentucky, Maine, Massachusetts, Michigan, New Jersey, New York, Oregon, and Wisconsin. The first year of funding awarded to states ranged from $2,000,000 (Maine) to $10,000,000 (New York). The first year of funding awarded to local partnerships ranged from $256,082 (Northeast

Minnesota School-To-Work ProTech Program) to $1,200,000 (Education at Work, Boston, MA).

Trends for the Future

The School-to-Work Opportunities Act (STWOA) was passed to ease the transition from school to work, and to improve long-term employment for all students. This legislation is not designed to create a new federal program, but rather to build on existing policies and programs to create improved systems of education, work and connecting activities. These systems will be long-term, and based on integrated classroom instruction and work experiences that provide all students with advanced learning and practical application of knowledge and skills.

A number of changes in the economy and in the workforce highlight the need to develop a comprehensive school-to-work system. In order to remain competitive on a global level, the U.S. economy is growing more integrated with the international economy. Global standards are being developed and accepted. In addition, the need for national skills standards is being addressed. There is also a move toward new ways of structuring work organizations. The new structures are called "high-performance work organizations." These new work organizations require an increasing number of entry-level workers who have a broad range of skills, knowledge, and ability. New technologies and international competition are rapidly decreasing the need for unskilled workers. The number of "technician" jobs is expected to grow by 1.4 million between 1992 and 2005, and one of every six new jobs will go to technical workers (High Skills, High Wages, 1994).

The types of industries are also changing. The service industry is the fastest-growing sector of the U.S. economy, while agriculture and manufacturing are shrinking. The information industry is expanding rapidly, along with an increase in the number of businesses started by entrepreneurs. Information technology has become a driving force in many businesses.

The image of tomorrow's workforce will be much different than today's. By the year 2000, 88.5 percent of all new entrants into the U.S. workforce will be women and minorities (Department of Labor). In addition, many workers are retiring later in their lives. Individuals must be prepared to work in teams which are diverse in terms of cultural, gender, age, and race. Second and third careers are becoming more common, and many people change careers every ten

years. Therefore, all students must have skills and knowledge that will transfer across occupations, and enable them to be lifelong learners.

In order to remain competitive, it is essential that the U.S. train its workforce for the future. Unfortunately, students who take vocational or academic classes as designed in the current system may not be prepared for the workforce they are entering. Students who prepare for, but do not complete, a four-year college degree often have difficulty in finding employment, while students who complete secondary vocational programs often confront limited opportunities for further education. The linkage of secondary and postsecondary education under school-to-work, and as is happening in Tech-Prep, provides a seamless system that offers all students optimal opportunities.

Education experiences in a school-to-work system empower students to work in teams of diverse students, as they will be required to do in the workplace of the future. Students also learn, at an actual worksite, how their academic courses relate to a world outside the classroom. In addition, career exploration activities must begin at an early age for all students. Many students today do not have sufficient information to make any decisions about career opportunities.

The STWOA creates great potential for change in our education and training systems. The development of viable partnerships between employers, education, labor, parents and students will be a major factor in the success of this systems. These stakeholders must work together to develop connecting activities for all students that tie into the other system components, such as the integration of academic and vocational learning, the integration of academic learning at the worksite, and the integration of occupational/worksite learning at the school.

Montana Perspective

History

In the first half of the twentieth century some Montana secondary schools prepared students for work on the farm or ranch by running a full-scale, student-labor-based, production agriculture operation. Still other schools trained students for the construction trades by building and selling one house each school year. Modern Montana examples of this type of student preparation, which is today called "school-based enterprise," range from

Wibaux High School's student-run concession business, to the Billings Career Center's student-run fully-licensed credit union which operated in the 1980s.

Over the years many Montana high schools formed business/school advisory councils. Through these partnerships, schools and businesses worked together on curriculum development, acquisition of instructional materials or equipment, modernizing school facilities, or coordinating cooperative student work experiences. Cooperative education has been the predominant program used to train Montana high school students for work since the 1970s. Most Montana high schools have offered their students a vocational-agricultural, vocational-industrial, or distributive-marketing education program. The reauthorization of the Carl Perkins Act in 1990 provided Montana schools with start-up funding required to build Tech-Prep programs that form linkages between secondary and postsecondary programs, with assistance from business advisory committees.

During the late 1980s and early 1990s, Montana business leaders began expressing concern over the preparation of students for the workplace. Leadership in Education for Economic Development (LEED), the Montana Chamber of Commerce, and the Montana Competitiveness Council expressed interest in working with educators to improve workforce preparation. Several meetings between business leaders and educators were held as early attempts were made to improve student preparation for the workplace.

Current Status and Progress

In response to concerns expressed by employers and educators, recognizing the rapidly changing nature of the modern workplace, and with the vision of preparing all of Montana's youth for college and careers, Montana applied for a school-to-work development grant. Montana began using this $200,000 (nine month) development grant in April of 1994. The grant supports Montana's efforts to build a school-to-work transition system.

Montana's school-to-work statewide system development effort is led by the Governor, the Superintendent of Public Instruction, the Commissioner of Higher Education, the Commissioner of the Department of Labor and Industry, and the Director of the Department of Commerce. A team of individuals representing these agencies, and working with representatives from the Montana Chamber of Commerce and the Montana AFL-CIO facilitate the system development process. In addition, an Advisory Board representing all

stakeholders (employers, educators, organized labor, parents, students, community-based organizations, apprenticeship programs, rehabilitation agencies, tribal councils, economic development organizations, elected officials and government agencies) is involved in the development process.

Montana began the school-to-work system development process at the local level. To raise awareness and collect information on local workforce development practices, twenty-two community meetings were held during the summer and fall of 1994. These public meetings were held in all regions of the state and included meetings on each of Montana's American Indian reservations. All local community stakeholders were encouraged to participate. These stakeholders include students, parents, employers, secondary and postsecondary educators, elected officials, organized labor, community-based organizations, economic development agencies, tribal councils, local vocational-education agencies, and job-training agencies. Levels of participation by key stakeholders in community meetings were high throughout the state.

Each community meeting introduced the School-To-Work Opportunities Act of 1994 to participants. Information about the need for developing a school-to-work system, the essential elements of such a system, federal funding, and Montana's school-to-work project was disseminated. In addition, meeting participants were encouraged to describe successful local initiatives and to characterize barriers impeding development of school-to-work systems.

The prospect of constructing local school-to-work opportunities systems was greeted with enthusiasm across Montana. Firm support for school-to-work programs exists among all groups of key stakeholders. However, no community in Montana was found to have all of the elements of a school-to-work system in place.

Three concerns were expressed repeatedly by community meeting participants,

- in many Montana communities there are not enough businesses to provide work-based learning experiences for all students,
- increasingly rigorous high school accreditation standards and Montana University System admissions requirements reduce the ability of school districts to implement innovative programs under a school-to-work system,
- employers fear that child labor laws, and workers' compensation

insurance and other liability issues, will make the cost of school-to-work participation too high.

Surveys of secondary and postsecondary school administrators and employers were also conducted to gather statewide information about current practices. Analysis of the information gathered from secondary and postsecondary administrators found that high school and college career-education programs currently available to Montana youth provide a core from which a comprehensive school-to-work transition system can be generated. However, few Montana high school students participated in workplace learning programs during the spring of 1994. While Montana's school administrators reported a broad range of linkages with businesses, the real nature and function of these links is unclear.

Information collected from Montana employers indicates that about 14 percent say they provide a student (high school or postsecondary) with a workplace learning experience that is coordinated with the student's school. This is a promising initial level of employer involvement in workforce preparation. Though Montana employers are generally satisfied with the preparation their entry-level employees receive from Montana's high schools and postsecondary schools, there are specific skills and abilities that employers say need improvement. Only about 40 percent of Montana's employers say that their recently-hired, entry-level employees write well, have well-disciplined work habits, or display strong motivation to work. Just one-third say that their new, entry-level employees can solve complex problems.

A state school-to-work conference was held on December 2 and 3, 1994 at the Kwa Taq Nuk Lodge in Polson, Montana. Representatives from all key stakeholding groups attended. In addition to addressing many of the concerns raised at the community meetings and identified in the surveys, the conference,

- offered workshops covering a broad range of topics related to developing and implementing school-to-work opportunities systems at the local level,
- offered a special pre-session for employers,
- featured the State Superintendent of Public Instruction, and representatives of the Governor and the Commissioner of Higher Education as speakers.

Following the conference, the key stakeholders at the state and local levels are intending to continue to build coalitions to develop a school-to-work opportunities system that will benefit all Montana youth.

Trends for the Future

The trends in Montana closely parallel those of the U.S.. Montana is increasingly involved in the global economy and must continue to be integrated in the international economy to remain competitive. The use of telecommunications and other new technologies is rapidly expanding throughout the state, in both business and education. High-technology service industries are increasing in number while the number of family farm and ranch operations are decreasing. There is a focus in Montana on entrepreneurial occupations, along with a need for developing more business and industry growth within the state. Montana's education and training systems must be responsive to these economic- and workforce-development trends. If the state is to be competitive in the global economy, then there is a need for systemic change.

Currently, Montana does not have a statewide system to prepare young people for employment. Instead, there are numerous strategies, programs and initiatives that target different populations. Many students fall through the cracks and are not prepared to move from school to work. We need to prepare all of Montana's youth for employment. A new system can be built on existing, successful programs such as Tech-Prep, Cooperative Education, School-Based Enterprise, Jobs for Montana's Graduates, and Career Academies. A statewide system structure would ensure that all students receive the education and training that will provide them with the necessary skills and knowledge to be competitive and economically independent in the global economy.

In order to build such a system, the Montana school-to-work development project applied for an extension of federal planning funds. These funds will be used to develop local partnerships of key stakeholders which ensure that Montana's system will be viable in all communities. A statewide structure will be developed with assistance from these local partnerships. Montana's vision is for a statewide system of school-to-work transition for all students that is built from the bottom-up (local communities) with structural guidance from the top down (Governor, Legislature, Office of Public Instruction, Higher Education, Department of Labor and Industry, and the Department of Commerce, in

collaboration with organized labor and employers). This will result in the creation of a statewide system for all students that has local flexibility.

The state economy and the economic well-being of all Montanans will benefit from a school-to-work system. A high-skills, high-technology workforce will bring more business and industry into the state, boosting local economies. Companies move to areas that have well-prepared workers, and where the education and training systems are responsive to their needs. The creation of a school-to-work opportunities system that includes school-based enterprise and entrepreneurial training, and encourages new business development will also provide opportunities for Montana's youth to remain in the state.

Development funds will also be used to expand the linkages between secondary and postsecondary education, and to provide professional development for educators, administrators, and employers in the components of school-to-work systems. The STWOA will allow Montana to build a seamless system of education, from the pre-kindergarten level through postsecondary programs. All students will acquire the knowledge and skills that employers have identified as being necessary for the workforce of the future. School-to-work system graduates will be economically independent and, as a result, the number of Montanans dependent on the state's welfare system may decrease.

Conclusion

Montana policymakers must consider the changing economy and workforce as they develop a statewide system of education and training. The school-to-work transition system provides excellent opportunities for Montana and Montanans. However, in developing a statewide education and training system, the following questions need to be addressed.

1. Does a system for <u>all</u> students mean access or participation, and how do we guarantee either one?
2. What level of commitment will employers make to school-to-work, in developing a statewide system and participating in the work-based learning- and connecting-activities components?
3. Can comprehensive connecting activities that will tie together the work-based and school-based learning components be developed?
4. What effect will child labor laws, liability, and worker's compensation have on the development of work-based learning? What can be done to

protect students, employers, and schools while students are on the worksite?

5. What type of performance measurement will be used to assess the effectiveness of the system and the skills of the students?
6. Is Montana willing to invest the resources to develop creative and innovative approaches to provide work-based learning experiences for students in rural areas where there are few, if any, employers?
7. Does Montana need or want new business development?
8. Do students need to understand the connection between what they are learning in school and the effect it will have on their job(s) and throughout their lives?
9. Is it the responsibility of education or employers to train workers? Or do we need to develop new partnerships (in which blame is a thing of the past) that work together to provide the best education and training opportunities possible for all Montana youth?
10. Is the state willing to invest general fund money into a new education and training system for all students? The federal seed money is available on a temporary basis, for a five-year period. Once the school-to-work opportunities system is developed with federal funds, it is the responsibility of local and state funding sources to educate the state's youth.

Montana policymakers cannot avoid these and other questions. Our state and national economies have changed and continue to change. Our current education and training systems were designed for a local, industrial economy. Many of our youth are not prepared for today's workforce or for further education. All too often, young people drop out of school and out of society, ending up on some type of welfare. Many students bounce from job to job, lacking the skills to be productive workers in any field. The School-to-Work Opportunities Act of 1994 provides Montana with a window of opportunity to develop a system for ALL Montana youth that will provide them with the skills and knowledge to be productive, independent workers in the economy of the future.

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